

10154

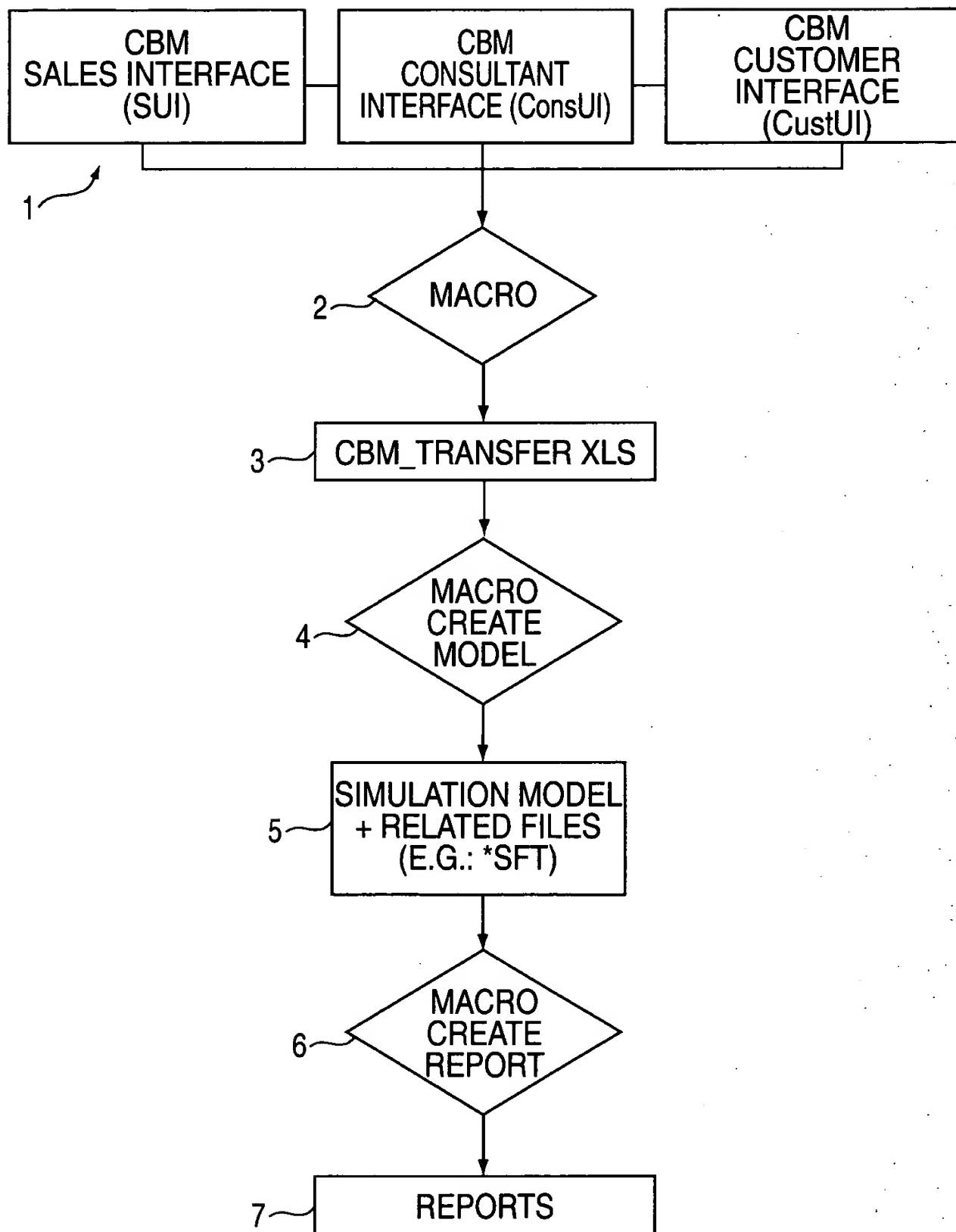


FIG. 1

09873023-050101

	A	B	C	D	E	F	G	H	I	
1	Customer Benefit Model									
2							Workflow			
3										
4										
5										
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27										
28										
29										
30										
31										

Files

Project Name: 052201e Scenario #

CBM Directory: C:\lanRawlesProjects\CBM\latestthomas2

CBM DE Directory: C:\lanRawlesProjects\CBM\latestthomas2\So

CBM Project Directory: C:\lanRawlesProjects\CBM\latestthomas2\projects\052201d

Simulation Directory: C:\program files\simulation2000

Time to run Simulation (days): 1

Build your project and set up the directory for experiments

Create Project

Shift Data

Line Configuration

Board Data

Create Simulation

Save and Exit

FIG. 2

	W	X	Y	Z	AA	AB
1	<div>C:\lanRawles\Projects\CBM\latestthomas2</div> <div>C:\lanRawles\Projects\CBM\latestthomas2\So</div> <div>C:\lanRawles\Projects\CBM\latestthomas2\projects\052201d</div>					
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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19						
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22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

FIG. 2A

A				Name	Size	Type	Date & Time
Desktop				1	550KB	Microsoft Excel-Tab	16:05:01 13:21
My Computer				CBM.xls	550KB	Microsoft Excel-Tab	16:05:01 13:03
Diskette A				CBM.Reports.xls	550KB	Microsoft Excel-Tab	16:05:01 13:07
(C:)				CBM.transfer.xls	550KB	Microsoft Excel-Tab	16:05:01 13:08
(D:)							
Data							
Recycler							
Tmm_XXXX							
CBA Calculator							
CTM							
COO							
Pricing							
S.G.S.							
Sales Training							
SIPLACE CBM							
Projects							
Test 2001-05-16-01							
1							
Test 1							
Test 2							
Test 3							
Test 4							
So							
SIPLACE CEM ARCHIVE							

FIG. 3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Main																				
2	Shift Schedule										SHIFT 1										
3											SHIFT 2										
4	Monday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
5	Tuesday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
6	Wednesday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
7	Thursday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
8	Friday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
9	Saturday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
10	Sunday	14	7:00	7:00	7:00	7:00	12:00	13:00	13:00	13:00	13:00	13:00	15:00	15:00	15:00	20:00	21:00	21:00	21:00	23:00	23:00
11	shifts apply for model	0																			
12	initial Offset	1																			
13	Only lunch break applies	0																			
14	Breaks apply for machines	0																			
15	Weeks per year	50																			
16	Days off per year	10																			
17	Hours per day	24.00																			
18	Hours per day/average	23.31																			
19	Hours per week	168.00																			
20	Hours per week/average	153.20																			
21	Hours per year	8160.00																			
22																					
23		#																			
24		1																			
25		2																			
26		3																			
27		4																			
28		5																			
29		6																			
30		10																			
		11																			
			6:00	8:00	8:15	10:00	10:30		14:00				14:00	16:00	16:15	18:00	18:30		22:00		22:00

FIG. 4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
31				12	7:00			12:00	13:00			15:00	15:00			20:00	21:00			23:00	23:00
32				13	7:00	8:00	8:15	12:00	12:30	15:00	15:15	19:30	19:30	20:00	20:15	0:00	0:30	3:00	3:15	7:00	
33				14	7:00			12:00	13:00			15:00	15:00			20:00	21:00			23:00	23:00
34				15																	
35				16																	
36				17																	
37				18																	
38				19																	
39				20																	
40				21																	
41				22																	
42				23																	

FIG. 4A

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
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24																				
25																				
26																				
27																				
28																				
29																				
30																				

FIG. 4B

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
31			4:00	5:00			7:00	→ Customer 1												
32								→ Customer 2												
33			4:00	5:00			7:00	→ Customer 3												
34								→ Customer 4												
35																				
36																				
37																				
38																				
39																				
40																				
41																				
42																				

FIG. 4C

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	<div>Line Configuration</div> <div>Insert</div> <div>Delete</div> <div>Database</div> <div>Main</div>																		
1	Return to the Main page																		
2	insert			# of process cells	transport system		assists(min/min)		maintenance (h/min) shift		failure (h/min) level 1		grafic		month		maintenan		qu
3	row				SD-Lane	synch	asynch	MTBA	MTTR	MTBA	MTTR	MTBM	MTTR	MTBF	MTTR	X	offset	MTBM	MTTM
4	delete row																		
5																			
9	1	7300 Buffer		0	0	0	60	1	0	0	1632	0	0	0	100	0	680	0	4080
10	2	7511 Conveyor 1060		0	1	1	60	1	0	0	1632	0	0	0	200	0	680	0	4080
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
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26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			

FIG. 5

	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
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16														
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18														
19														
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25														
26														
27														
28														
29														
30														
31														
32														
33														
34														

FIG. 5A

AU	AV	AW	AX	AY	AZ
			Bare Board Loader		
			Buffer		
			Conveyor 1060		
			Conveyor 1590		
			Conveyor 2380		
			F4 x 2 / SPL		
			F4 x 3 / SPL		
			F5		
			F5 x 2 / SPL		
			F5 x 3 / SPL		
			Flip Station 180		
			HS-50		
			HS-50 x 2 / SPL		
			HS-50 x 3 / SPL		
			Last Lift		
			Magazine Buffer MB100		
			Magazine Buffer MB50		
			Magazine Loader ML02		
			Magazine Loader ML05		
			Magazine Unloader MIJ02		
			Magazine Unloader MIJ05		
			Printer pro-flow		
			Printer pro-flow temp control		
			Printer squeegee operation		
			Printer squeegee operation temp control		
			RX 261		
			RX 262		
			RX 331		
			RX 332		
			RX 411		
			RX 412		

FIG. 5B

	AU	AV	AW	AX	AY	AZ
35				S-20		
36				S-23		
37				S-25		
38				Shuttle-1 lane to 2 lane		
39				Shuttle-2 lane to 1 lane		
40				Telescopic Gate TG		
41				Turn Station TS		

FIG. 5C

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
<div>Line Configuration</div> <div>Insert</div> <div>Delete</div> <div>Database</div> <div>Main</div> <div>Return to the Main page</div>																			
1																			
2	insert row			# of process cells		transport system		assists(min/min)		maintenance (h/min) shift		failure (h/min) level 1		grafic		month		maintenan qu	
3	delete row					SD- Lane		MTBA MTTR		MTBA MTTR		MTBF MTTR		X offset		MTBM MTTR		MTBM	
4																			
5																			
6																			
7																			
8																			
9	1	7300		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	2	7511		0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
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27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			

FIG. 6

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
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17																		
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19																		
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22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
32																		

FIG. 7

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
33	F4 x 2/SPL	1042	1	1	2	60	1						450			163.20		680.00
34	F4 x 3/SPL	1043	1	1	3	60	1						875			163.20		680.00
35	F5	1050	1	1	1	60	1						200			163.20		680.00
36	F5 x 2/SPL	1052	1	1	2	60	1						450			163.20		680.00
37	F5 x 3/SPL	1053	1	1	3	60	1						875			163.20		680.00
38	Flip Station 180	7580	1	1	0	60	1						200			163.20		680.00
39	HS-50	1500	1	1	2	60	1						400			163.20		680.00
40	HS-50 x 2/SPL	1502	1	1	4	60	1						850			163.20		680.00
41	HS-50 x 3/SPL	1503	1	1	6	60	1						1250			163.20		680.00
42	Last Lift	7500	0	0	0	60	1						700			163.20		680.00
43	Magazine Buffer MB100	7320	0	0	0	60	1						100			163.20		680.00
44	Magazine Buffer MB50	7310	0	0	0	60	1						100			163.20		680.00
45	Magazine Loader ML02	7600	1	1	0	60	1						200			163.20		680.00
46	Magazine Loader ML05	7610	1	1	0	60	1						200			163.20		680.00
47	Magazine Unloader MU02	7601	1	1	0	60	1						200			163.20		680.00
48	Magazine Unloader MU05	7611	1	1	0	60	1						200			163.20		680.00
49	Printer pro-flow	9003	1	1	1	60	1						200			163.20		680.00
50	Printer pro-flow temp control	9004	1	1	1	60	1						200			163.20		680.00
51	Printer squeegee operation	9001	1	1	1	60	1						200			163.20		680.00
52	Printer squeegee operation temp control	9002	1	1	1	60	1						200			163.20		680.00
53	RX 261	8001	1	1	1	60	1						700			163.20		680.00
54	RX 262	8002	1	1	1	60	1						700			163.20		680.00
55	RX 331	8003	1	1	1	60	1						700			163.20		680.00
56	RX 332	8004	1	1	1	60	1						700			163.20		680.00
57	RX 411	8005	1	1	1	60	1						700			163.20		680.00
58	RX 412	8006	1	1	1	60	1						700			163.20		680.00
59	S-20	1200	1	1	1	60	1						200			163.20		680.00
60	S-23	1230	1	1	1	60	1						200			163.20		680.00
61	S-25	1250	1	1	1	60	1						200			163.20		680.00
62	Shuttle - 1 lane to 2 lane	7100	0	0	0	60	1						100			163.20		680.00
63	Shuttle - 2 lane to 1 lane	7200	0	0	0	60	1						100			163.20		680.00
64	Telescopic Gate TG	7550	1	1	0	60	1						150			163.20		680.00
65	Turn Station TS	7570	1	1	0	60	1						200			163.20		680.00
66																163.20		680.00
67																163.20		680.00
68																163.20		680.00

FIG. 7A

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
33	F4 x 2 / SPL	1042	1	1	2	60	1									163.20		680.00
34	F4 x 3 / SPL	1043	1	1	3	60	1									163.20		680.00
35	F5	1050	1	1	1	60	1									163.20		680.00
36	F5 x 2 / SPL	1052	1	1	2	60	1									163.20		680.00
37	F5 x 3 / SPL	1053	1	1	3	60	1									163.20		680.00
38	Flip Station 180	7560	1	1	0	60	1									163.20		680.00
39	HS-50	1500	1	1	2	60	1									163.20		680.00
40	HS-50 x 2 / SPL	1502	1	1	4	60	1									163.20		680.00
41	HS-50 x 3 / SPL	1503	1	1	6	60	1									163.20		680.00
42	Last Lift	7500	0	0	0	60	1									163.20		680.00
43	Magazine Buffer MB100	7320	0	0	0	60	1									163.20		680.00
44	Magazine Buffer MB50	7310	0	0	0	60	1									163.20		680.00
45	Magazine Loader ML02	7600	1	1	0	60	1									163.20		680.00
46	Magazine Loader ML05	7610	1	1	0	60	1									163.20		680.00
47	Magazine Unloader MU02	7601	1	1	0	60	1									163.20		680.00
48	Magazine Unloader MU05	7611	1	1	0	60	1									163.20		680.00
49	Printer pro-flow	9003	1	0	1	60	1									163.20		680.00
50	Printer pro-flow temp control	9004	1	0	1	60	1									163.20		680.00
51	Printer squeegee operation	9001	1	0	1	60	1									163.20		680.00
52	Printer squeegee operation temp control	9002	1	0	1	60	1									163.20		680.00
53	RX 261	8001	1	1	1	60	1									163.20		680.00
54	RX 262	8002	1	1	1	60	1									163.20		680.00
55	RX 331	8003	1	1	1	60	1									163.20		680.00
56	RX 332	8004	1	1	1	60	1									163.20		680.00
57	RX 411	8005	1	1	1	60	1									163.20		680.00
58	RX 412	8006	1	1	1	60	1									163.20		680.00
59	S-20	1200	1	1	1	60	1									163.20		680.00
60	S-23	1230	1	1	1	60	1									163.20		680.00
61	S-25	1250	1	1	1	60	1									163.20		680.00
62	Shuttle - 1 lane to 2 lane	7100	0	0	0	60	1									163.20		680.00
63	Shuttle - 2 lane to 1 lane	7200	0	0	0	60	1									163.20		680.00
64	Telescopic Gate TG	7550	1	1	0	60	1									163.20		680.00
65	Turn Station TS	7570	1	1	0	60	1									163.20		680.00
66																		680.00
67																		680.00
68																		680.00

FIG. 7B

TOTDSD" E2DE2860

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
69																163.20	680.00	
70																163.20	680.00	
71																163.20	680.00	
72																163.20	680.00	
73																163.20	680.00	
74																163.20	680.00	
75																163.20	680.00	
76																163.20	680.00	
77																163.20	680.00	
78																163.20	680.00	
79																163.20	680.00	
80																163.20	680.00	
81																163.20	680.00	
82																163.20	680.00	
83																163.20	680.00	
84																163.20	680.00	
85																163.20	680.00	
86																163.20	680.00	
87																163.20	680.00	
88																163.20	680.00	
89																163.20	680.00	
90																163.20	680.00	
91																163.20	680.00	
92																163.20	680.00	
93																163.20	680.00	
94																163.20	680.00	
95																163.20	680.00	
96																163.20	680.00	
97																163.20	680.00	
98																163.20	680.00	
99																163.20	680.00	

FIG. 7C

	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1																
2	e(h/min)															
3	thly	quarterly	yearly													
4	MTTM	MTBM	MTTM	MTBM	MTTM	gratic	gratic	high level		witness module single lane	witness module dual lane	inbound routing				
5	4080.00			8160.00				length offset								
6	4080.00			8160.00				length offset								
7	4080.00			8160.00				length offset								
8	4080.00			8160.00				length offset								
9	4080.00			8160.00				length offset								
10	4080.00			8160.00				length offset								
11	4080.00			8160.00				length offset								
12	4080.00			8160.00				length offset								
13	4080.00			8160.00				length offset								
14	4080.00			8160.00				length offset								
15	4080.00			8160.00				length offset								
16	4080.00			8160.00				length offset								
17	4080.00			8160.00				length offset								
18	4080.00			8160.00				length offset								
19	4080.00			8160.00				length offset								
20	4080.00			8160.00				length offset								
21	4080.00			8160.00				length offset								
22	4080.00			8160.00				length offset								
23	4080.00			8160.00				length offset								
24	4080.00			8160.00				length offset								
25	4080.00			8160.00		200	0			BareBoard_Loader		Printrmc	200			
26	4080.00			8160.00		150	0			Buffers		B1	100			
27	4080.00			8160.00		150	0			Conv2_1	Conv2_2	conv5_2001	100			
28	4080.00			8160.00		150	0			Conv3_1	Conv3_2	conv5_2001	100			
29	4080.00			8160.00		150	0			Conv4_1	Conv4_2	conv5_2001	100			
30	4080.00			8160.00		150	0			Conv1_1	Conv1_2	conv5_2001	100			
31	4080.00			8160.00		150	0			Conv5_1	Conv5_2	conv5_2001	100			
32	4080.00			8160.00		200	0			S25 L1	S25	Conveyor001	200			

FIG. 7D

TD1090"220E2860

	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
33		4080.00		8160.00		600	0			S25Cluster2_L1	S25Cluster2	Lift1				450
34		4080.00		8160.00		900	0			S25Cluster3_L1	S25Cluster3	Lift1				875
35		4080.00		8160.00		200	0			S25_L1	S25	Conveyor001				200
36		4080.00		8160.00		600	0			S25Cluster2_L1	S25Cluster2	Lift1				450
37		4080.00		8160.00		900	0			S25Cluster3_L1	S25Cluster3	Lift1				875
38		4080.00		8160.00		200	0			Flip_Station		Printermc				200
39		4080.00		8160.00		350	0			HS50_L1	HS50	Conveyor001				400
40		4080.00		8160.00		900	0			HS50Cluster2_L	HS50Cluster2L	Lift1				850
41		4080.00		8160.00		1350	0			HS50Cluster3_L	HS50Cluster3L	Lift1				1250
42		4080.00		8160.00		100	0			Lastlift		Lift4				700
43		4080.00		8160.00		150	0			Buffer_Magazine100		B1				100
44		4080.00		8160.00		150	0			Buffer_Magazine50		B1				100
45		4080.00		8160.00		200	0			Magazine_Loader2		Printermc				200
46		4080.00		8160.00		200	0			Magazine_Loader5		Printermc				200
47		4080.00		8160.00		200	0			Magazine_Unloader2		Printermc				200
48		4080.00		8160.00		200	0			Magazine_Unloader5		Printermc				200
49		4080.00		8160.00		200	0			Printer		Printermc				200
50		4080.00		8160.00		200	0			Printer		Printermc				200
51		4080.00		8160.00		200	0			Printer		Printermc				200
52		4080.00		8160.00		200	0			Printer		Printermc				200
53		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
54		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
55		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
56		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
57		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
58		4080.00		8160.00		1400	0			Oven_1Lane	Oven_2	Oven_2001				700
59		4080.00		8160.00		200	0			S25_L1	S25	Conveyor001				200
60		4080.00		8160.00		200	0			S25_L1	S25	Conveyor001				200
61		4080.00		8160.00		200	0			S25_L1	S25	Conveyor001				200
62		4080.00		8160.00		100	0			Shuttle1_2		Shuttle				100
63		4080.00		8160.00		100	0			Shuttle2_1		Shuttle				100
64		4080.00		8160.00		150	0			ConvTG		conv5_2001				150
65		4080.00		8160.00		200	0			Turn_Station		Printermc				200
66		4080.00		8160.00												
67		4080.00		8160.00												
68		4080.00		8160.00												

FIG. 7E

	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
69		4080.00		8160.00												
70		4080.00		8160.00												
71		4080.00		8160.00												
72		4080.00		8160.00												
73		4080.00		8160.00												
74		4080.00		8160.00												
75		4080.00		8160.00												
76		4080.00		8160.00												
77		4080.00		8160.00												
78		4080.00		8160.00												
79		4080.00		8160.00												
80		4080.00		8160.00												
81		4080.00		8160.00												
82		4080.00		8160.00												
83		4080.00		8160.00												
84		4080.00		8160.00												
85		4080.00		8160.00												
86		4080.00		8160.00												
87		4080.00		8160.00												
88		4080.00		8160.00												
89		4080.00		8160.00												
90		4080.00		8160.00												
91		4080.00		8160.00												
92		4080.00		8160.00												
93		4080.00		8160.00												
94		4080.00		8160.00												
95		4080.00		8160.00												
96		4080.00		8160.00												
97		4080.00		8160.00												
98		4080.00		8160.00												
99		4080.00		8160.00												

FIG. 7F

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Main												
1													
2	1												
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13	1	7300 Buffer		999	999	999	999	999	999	999	999	999	999
14	2	7511 Conveyor 1060		999	999	999	999	999	999	999	999	999	999

FIG. 8

	N	O	P	Q	R	S	T	U	V	W	X	Y
1												
2	10	11	12	13	14	15	16	17	18	19	20	21
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13	999	999	999	999	999	999	999	999	999	999	999	999
14	999	999	999	999	999	999	999	999	999	999	999	999

FIG. 8A

	Z	AA	AB	AC	AD	AE	AF	AG	AH
1									
2	22	23	24	25	26	27	28	29	30
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13	999	999	999	999	999	999	999	999	999
14	999	999	999	999	999	999	999	999	999

FIG. 8B

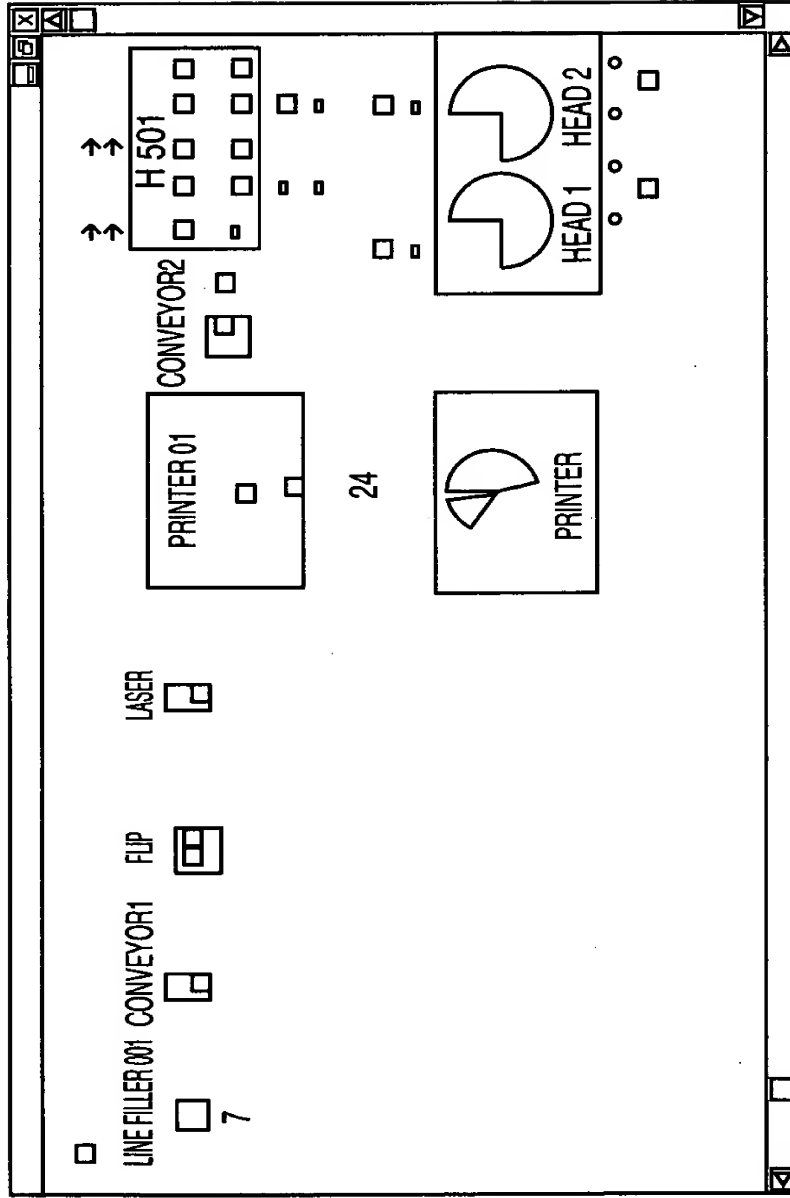


FIG. 9

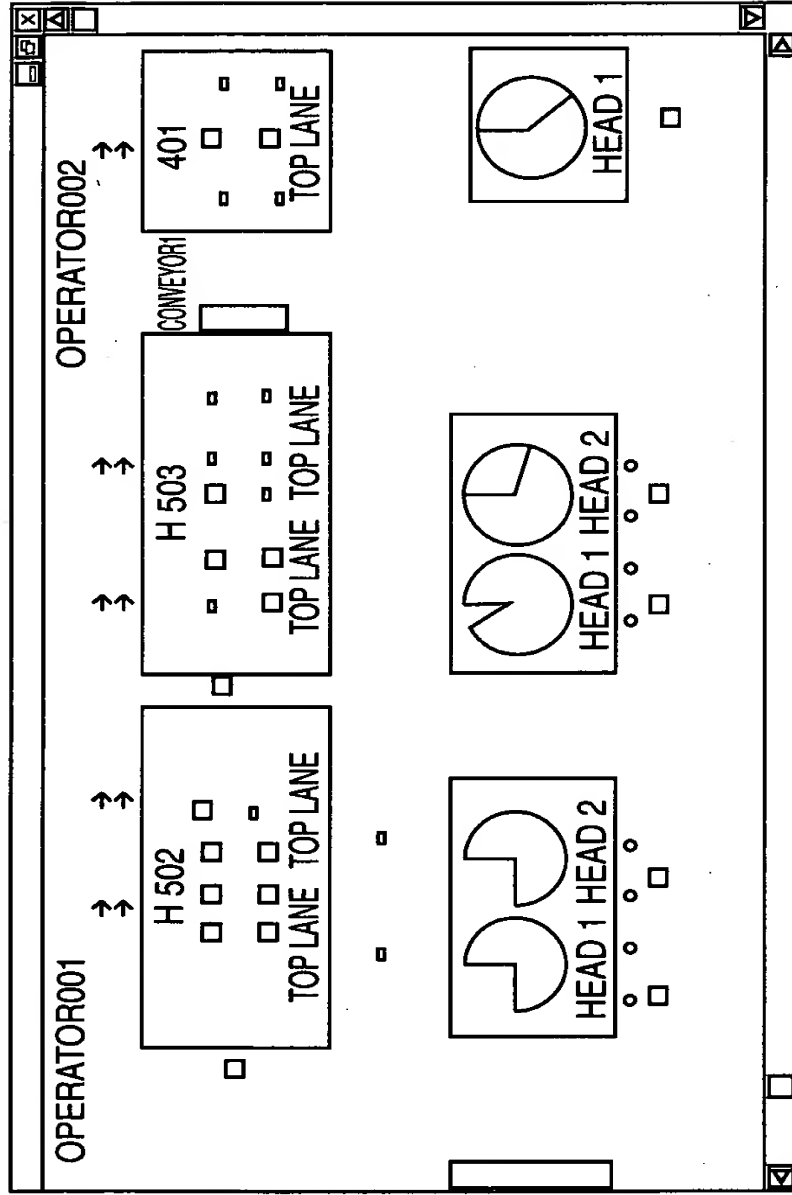


FIG. 9A

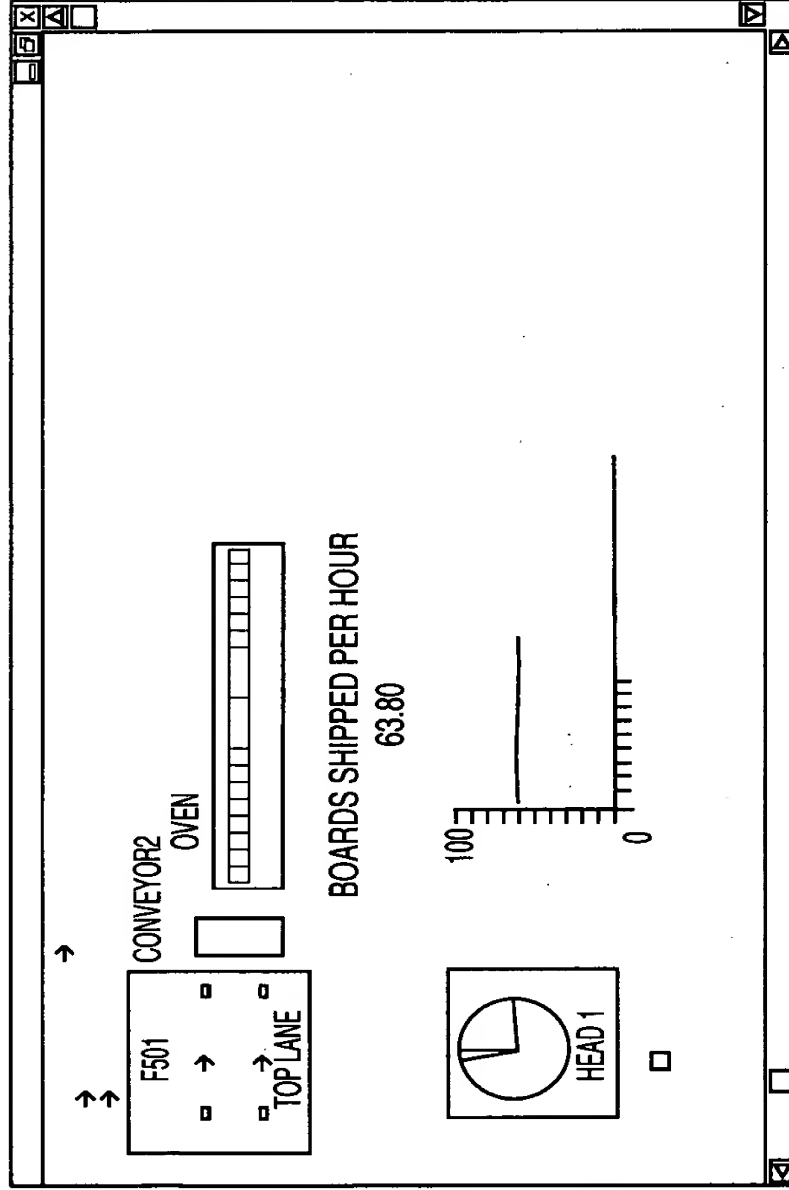


FIG. 9B

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												

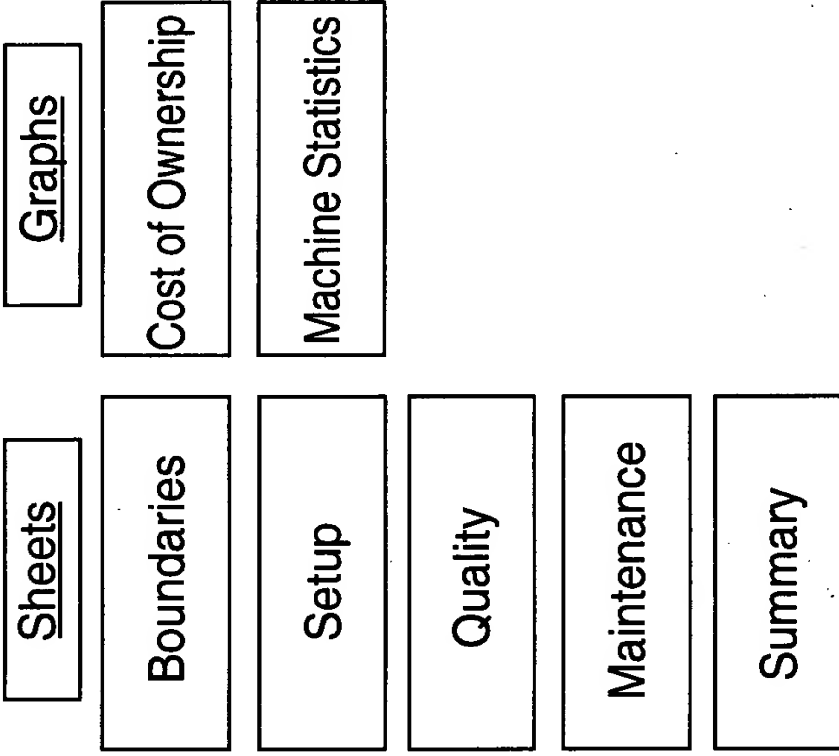


FIG. 10

	A	B	C	D	E	F	G
1	Boundaries						
2	Project	Test1					
3	Date	31/March 2001					
4							
5							
6	Financial						
7	Currency (Input)	0					
8	Currency (Output)	0					
9	Exchang ratio (In/Out)	0.00					
10	Depreciation	0.00%					
11	Interest Rate	0%					
12	Labor	0					
13	Operator	0.00					
14	Supervisor	0.00					
15	Maintenance	0.00					
16	Rework	0.00					
17	Utilities	0					
18	floor space (/year/spm)	0.00					
19	electricity (kWh)	0.00					
20	Nitrogen (???)	0.00					
21	air (???)	0.00					
22							
23							
24							
25							
26							

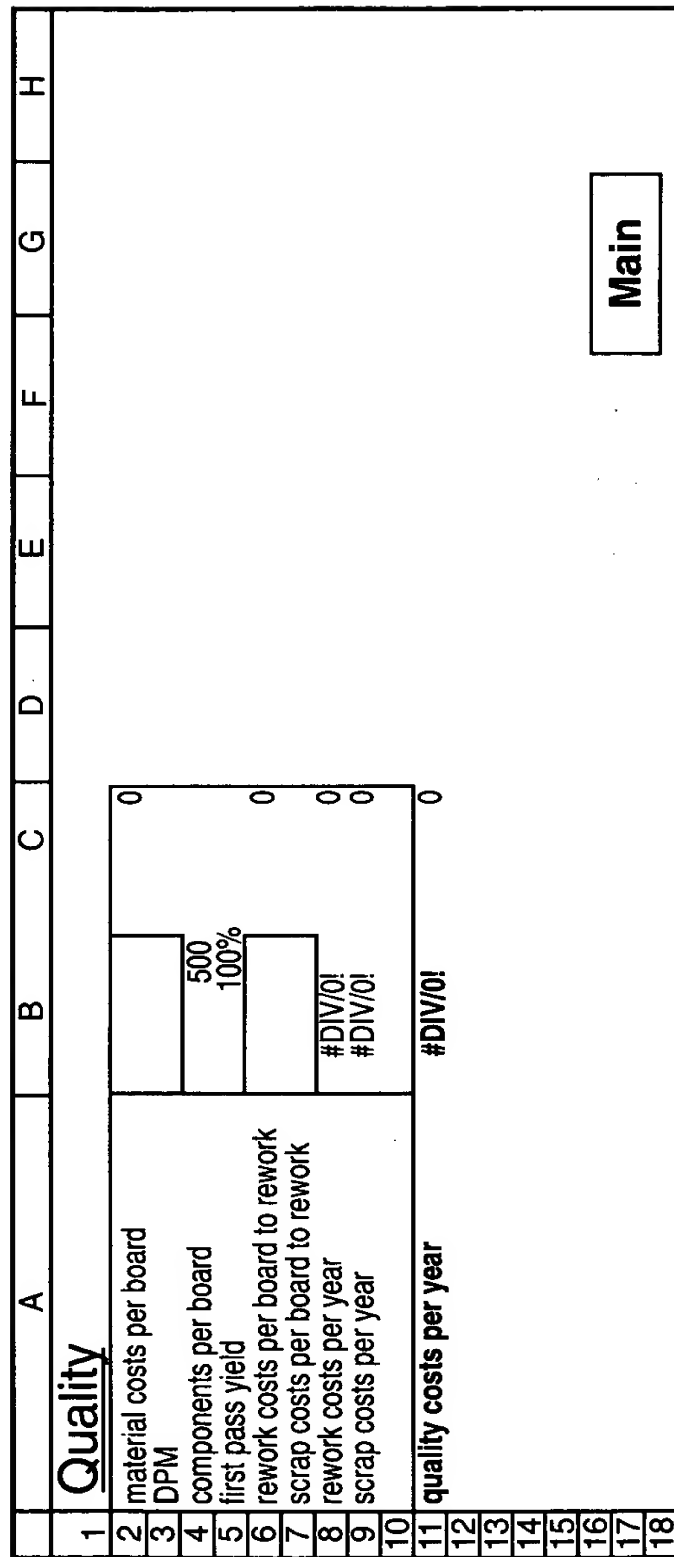
Main

FIG. 11

	A	B	C	D	E	F	G
1	Setup						
2							
3	internal setup						
4	Operator labor per hour	0.00	hours				
5	setup changes every x h						
6	# of setup changes per week						
7	setup changes per year	0	min.				
8	time per setup	0.00	hours				
9	setup time per year	0					
10	internal setup costs	0					
11	external setup						
12	external setup labour per hour		minutes per setup				
13	external setup						
14	external setup per year	0.00	hours				
15	Investment for external setup						
16							
17							
18	external setup costs per year	0					
19							
20	setup costs	0					
21							

Main

FIG. 12



	A	B	C	D	E	F	G	H	I
	Maintenance		minutes	# of workers	who does maint.	downtime factor	line operator (h)	maint. team (h)	downtime (h)
1									
2	line workers			0					
3	maintenance per shift (min)				1	100%	0.00	0.00	#DIV/0!
4	maintenance weekly (min)				1	100%	0.00	0.00	#DIV/0!
5	maintenance monthly add. (min)				2	100%	#DIV/0!	#DIV/0!	#DIV/0!
6	maintenance quarterly add (min)				3	100%	0.00	0.00	#DIV/0!
7	maintenance every x h add (min)				3	100%	0.00	0.00	#DIV/0!
8	maintenance time calculated (h)	10,000					#DIV/0!	#DIV/0!	#DIV/0!
9	labor costs						#DIV/0!	#DIV/0!	0
10									
11	maintenance costs per year							#DIV/0!	0.000000 €
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

Main

FIG. 14

FIG. 15

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3														
4														
5														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														
35														
36														
37														
38														
39														

UTILITIES 9152

QUALITY

MISC 13209

LABOR
53658

INVESTMENT
127838

FIG. 16

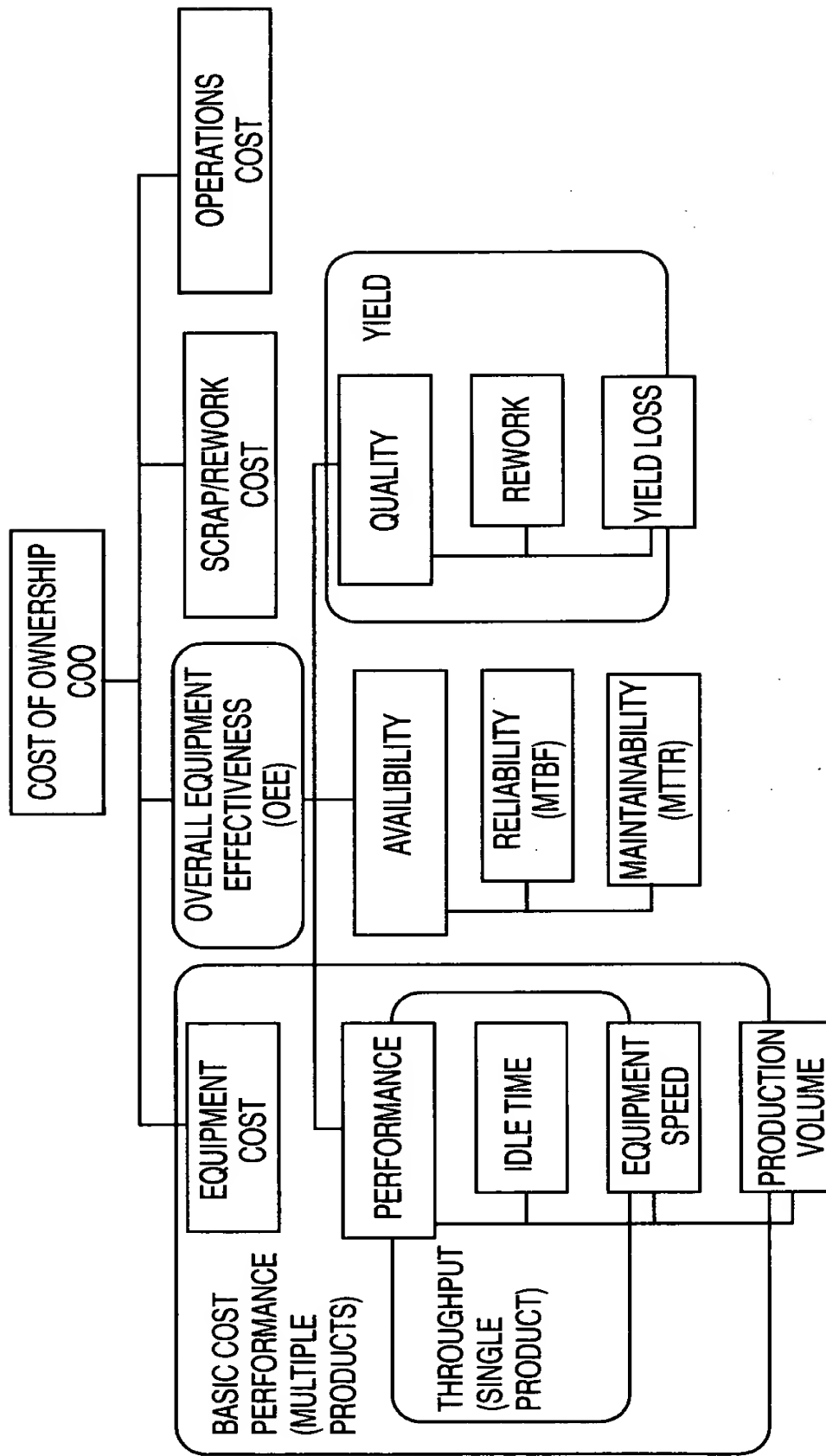
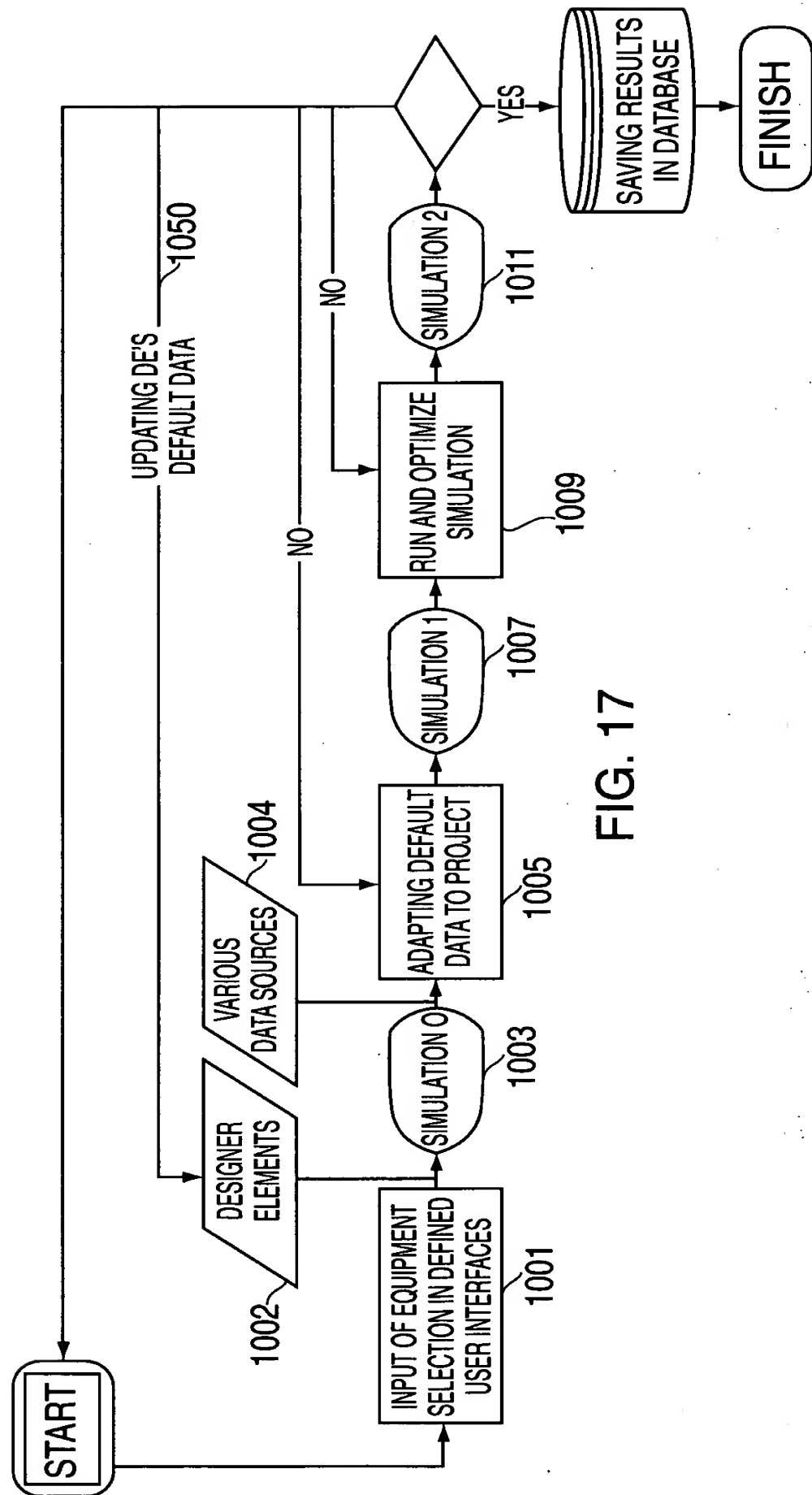


FIG. 16A



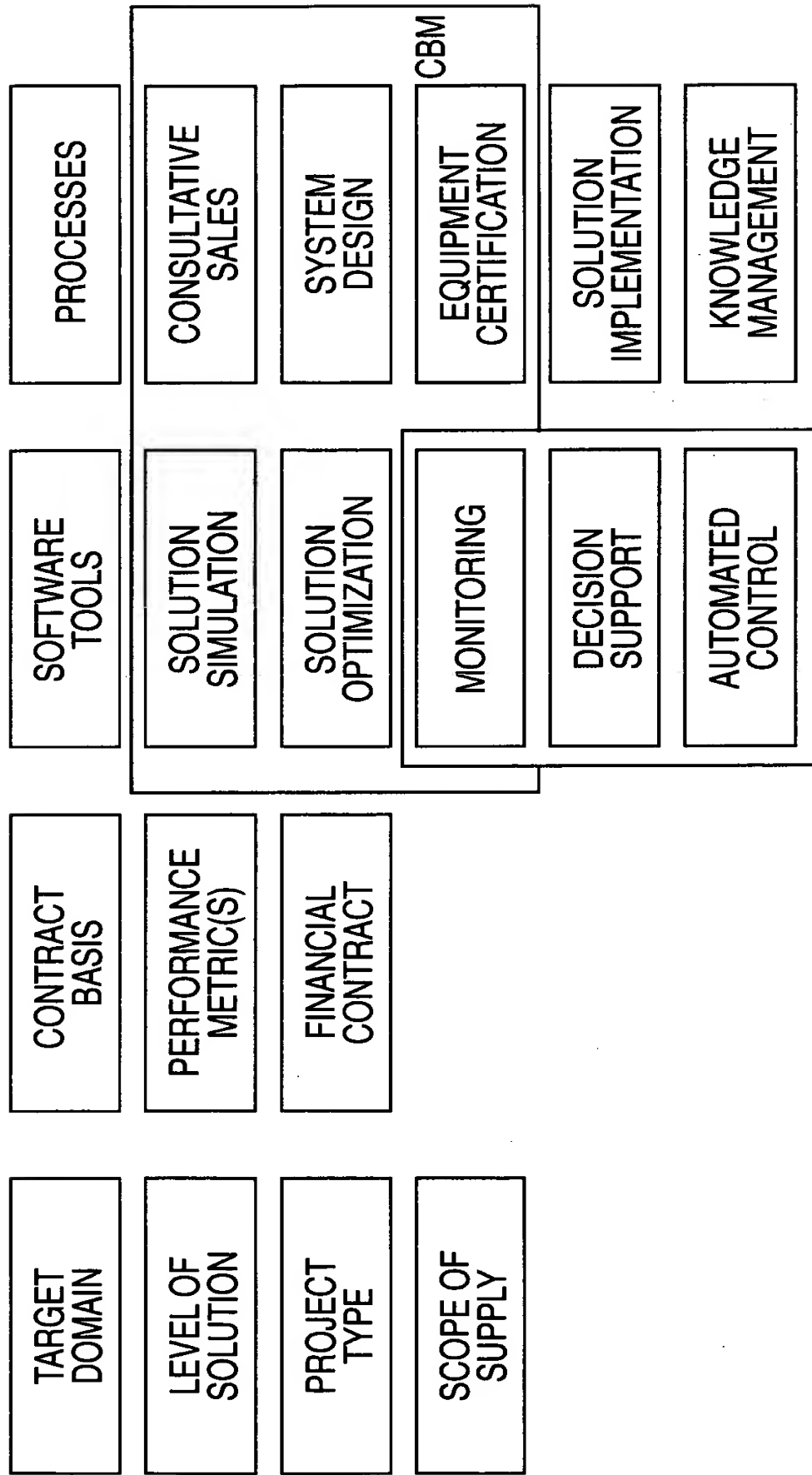


FIG. 18

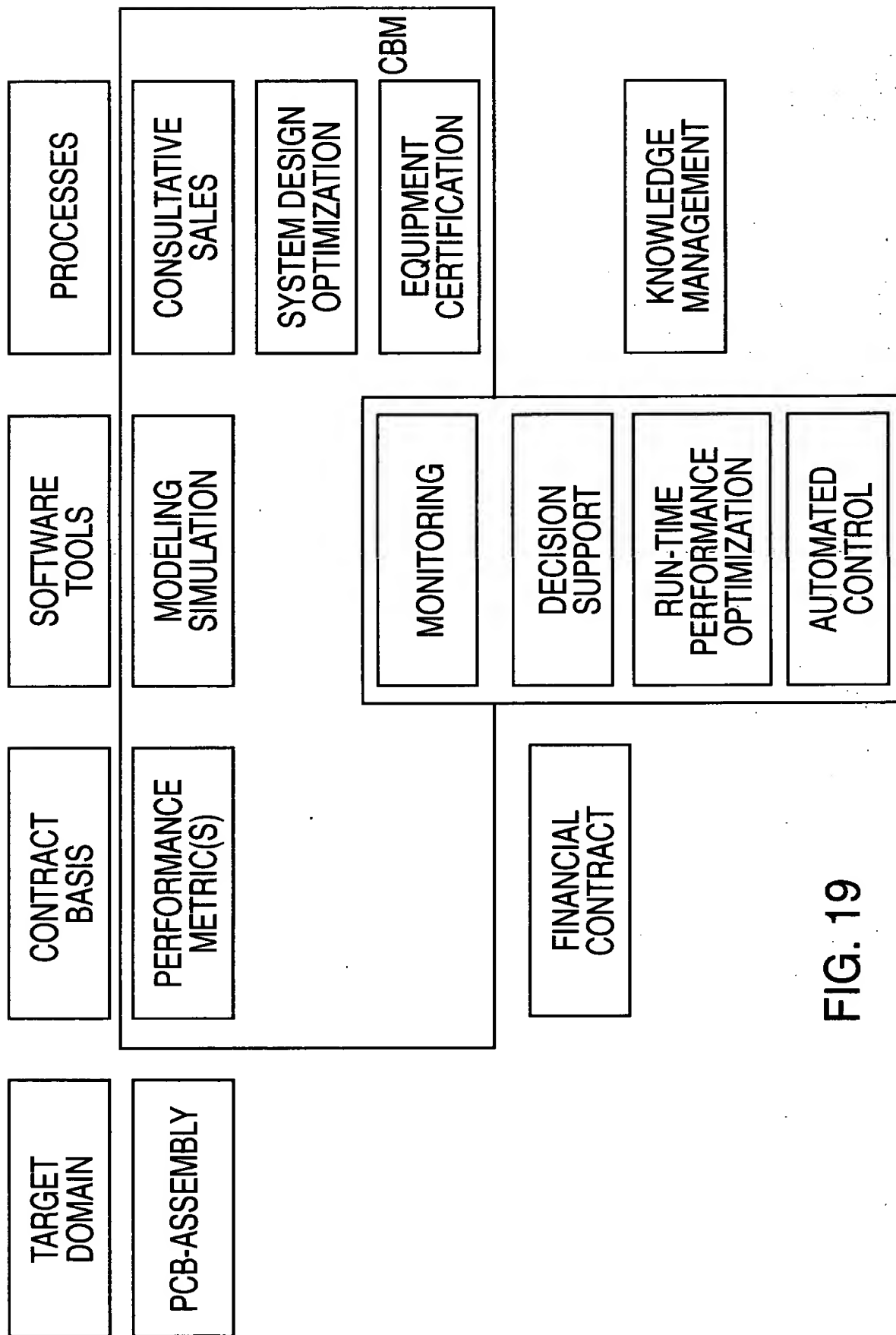


FIG. 19

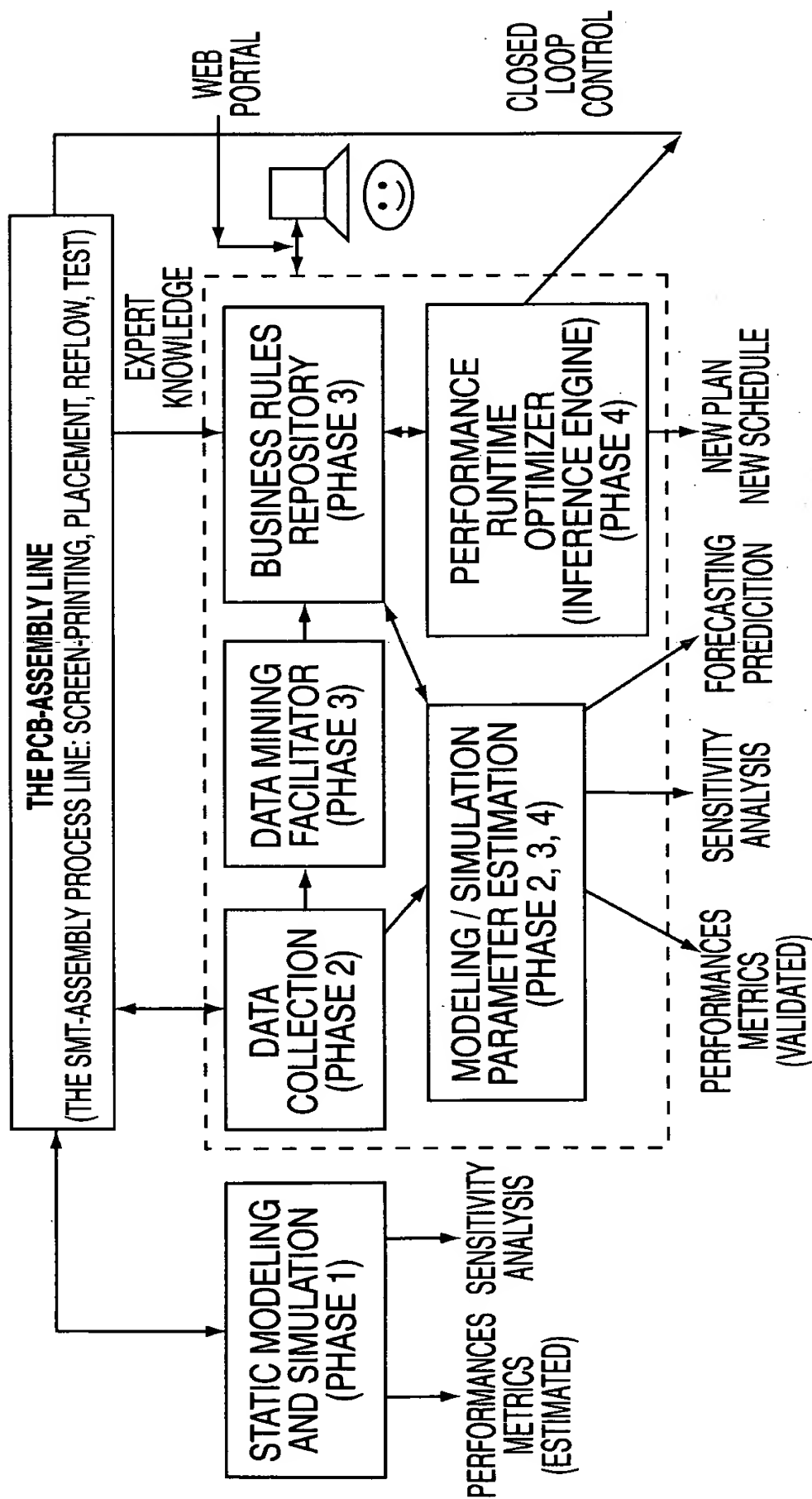


FIG. 20

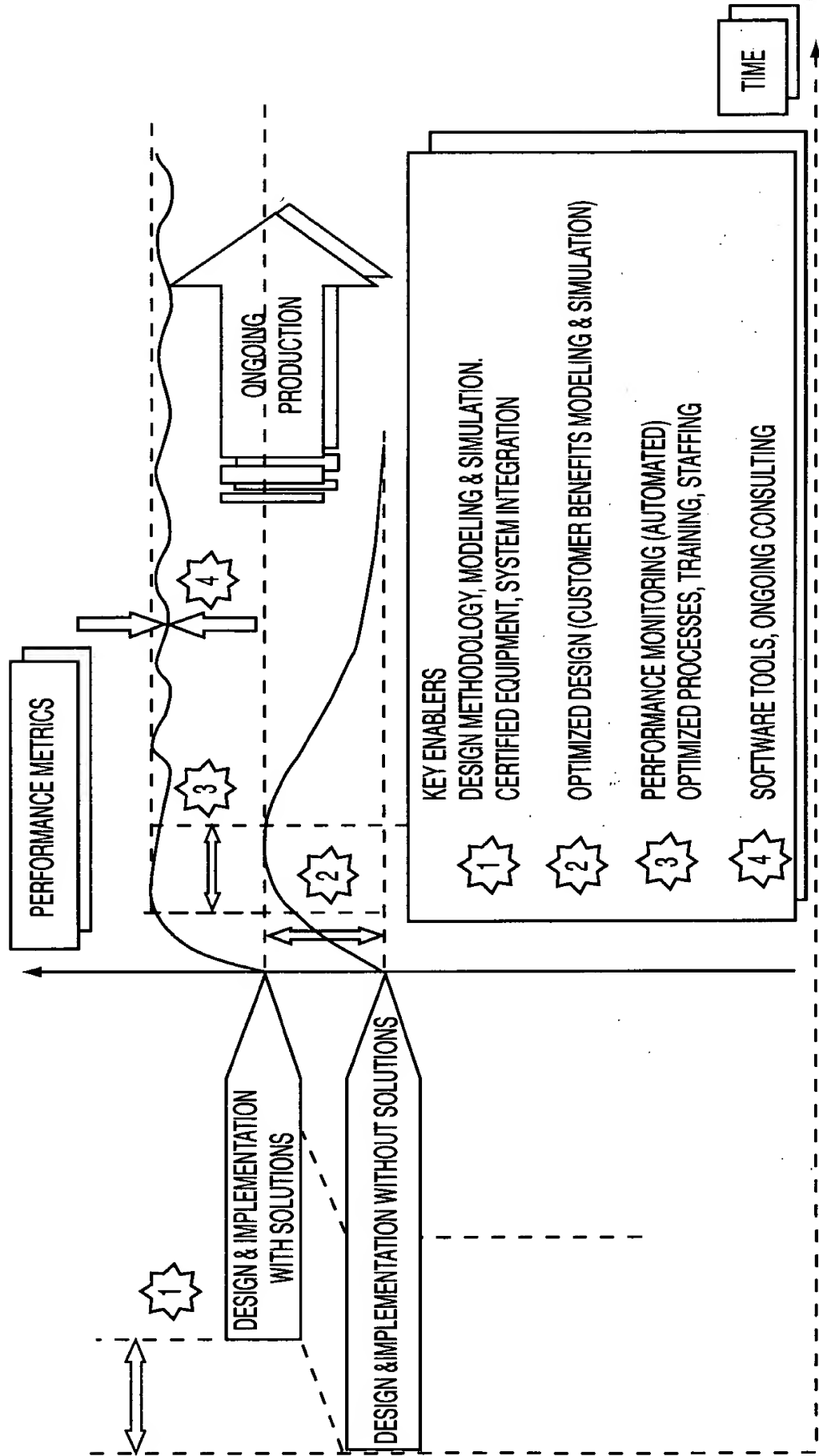


FIG. 21

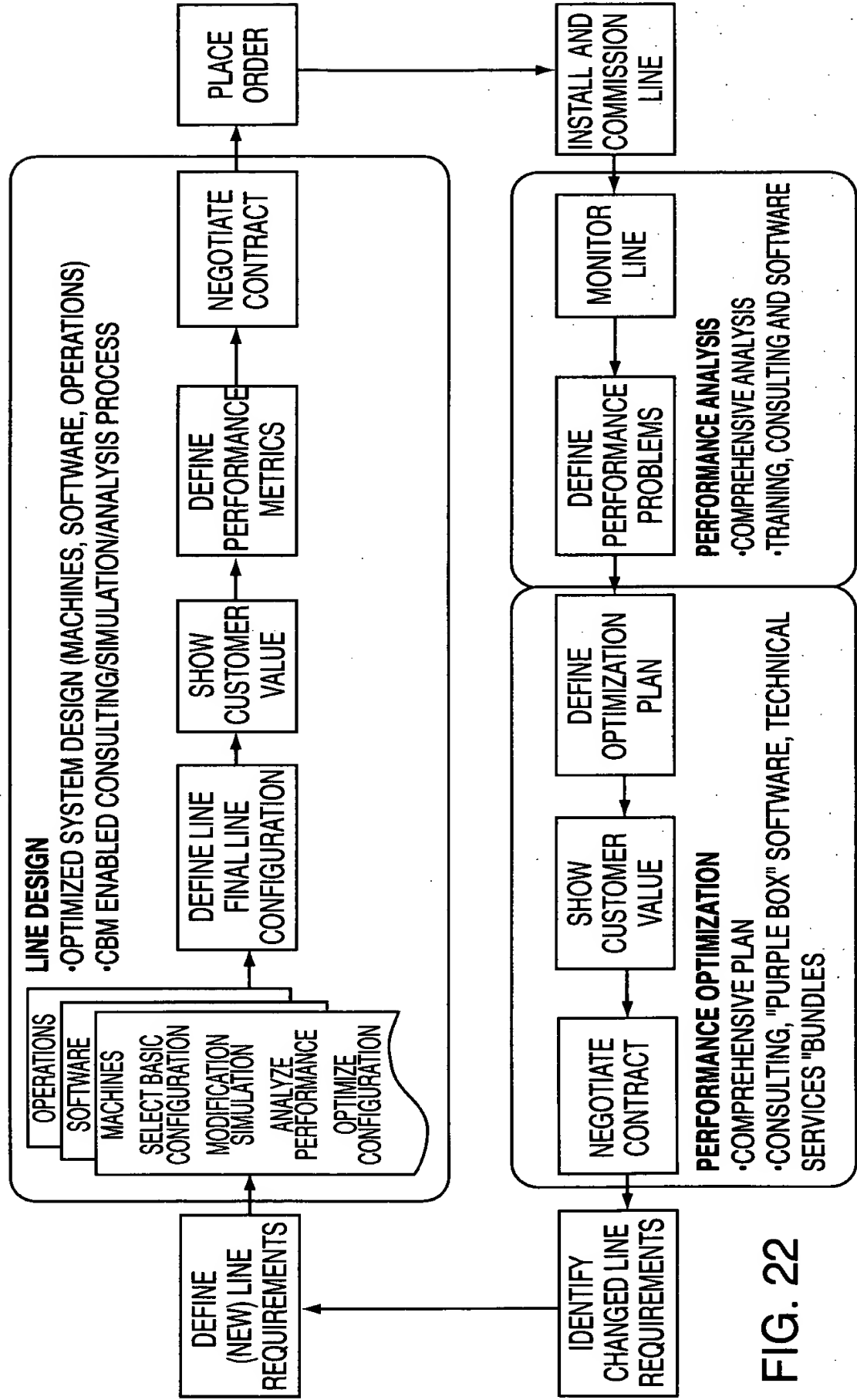


FIG. 22

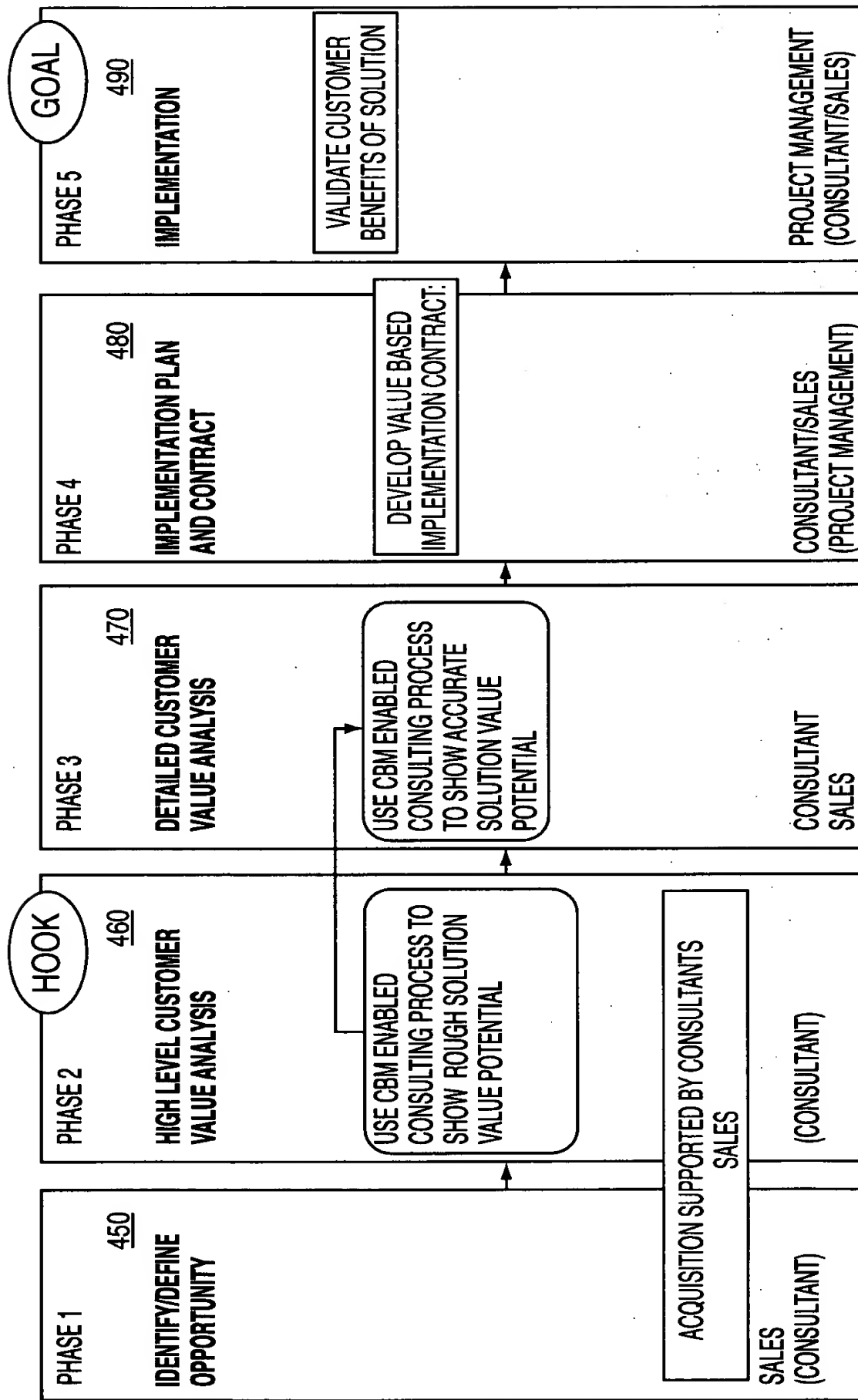


FIG. 23

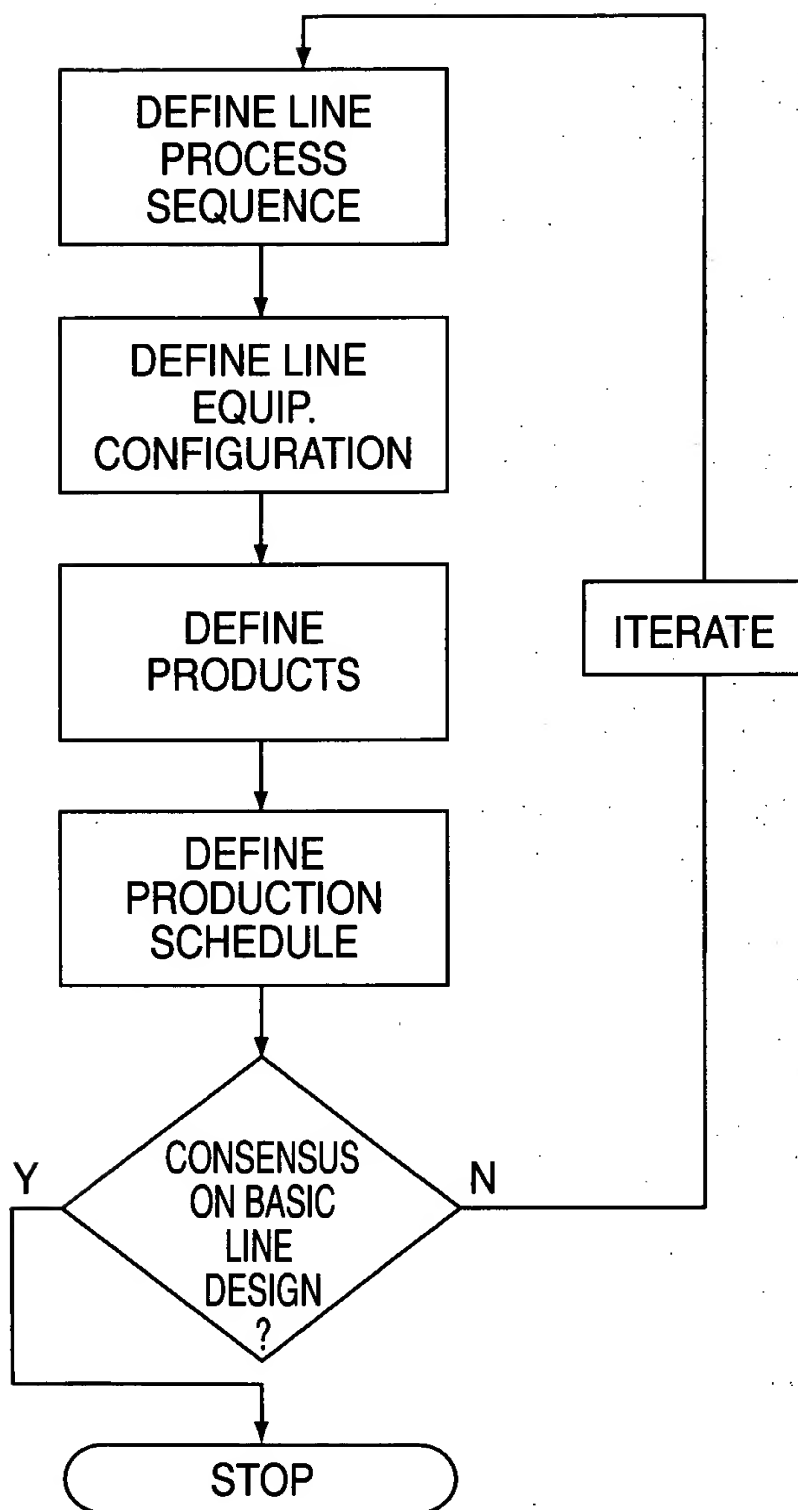


FIG. 24

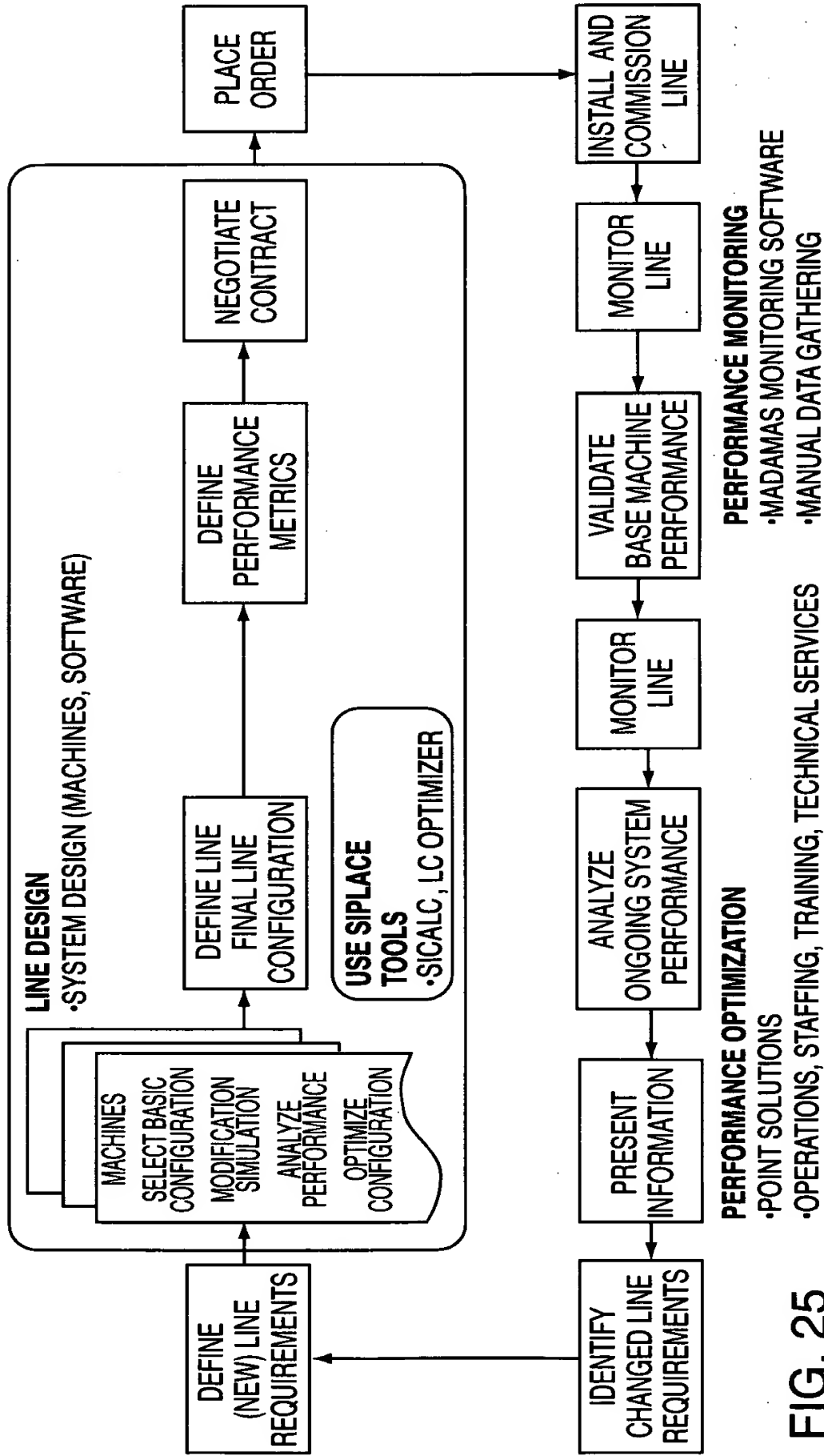


FIG. 25

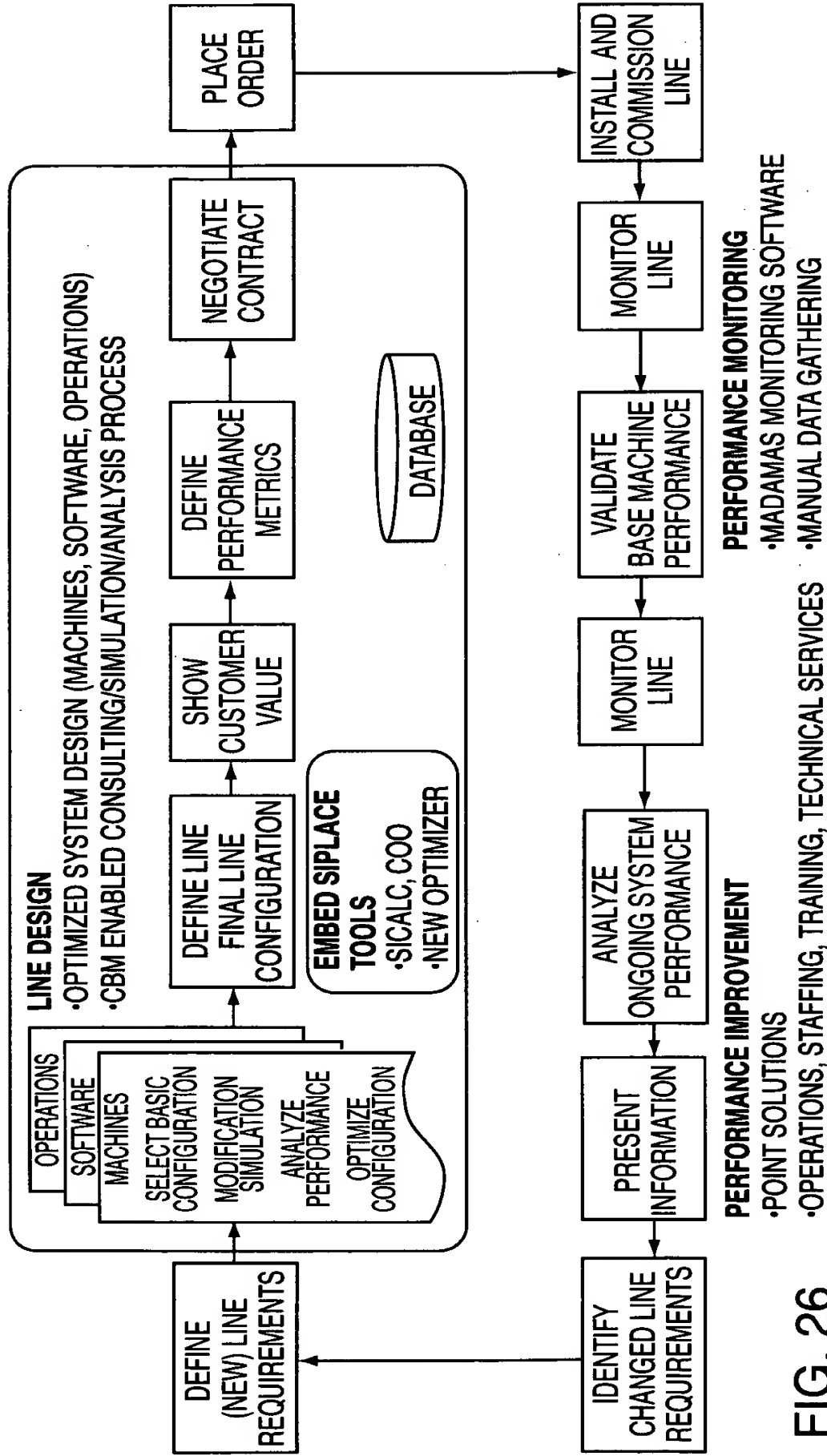


FIG. 26

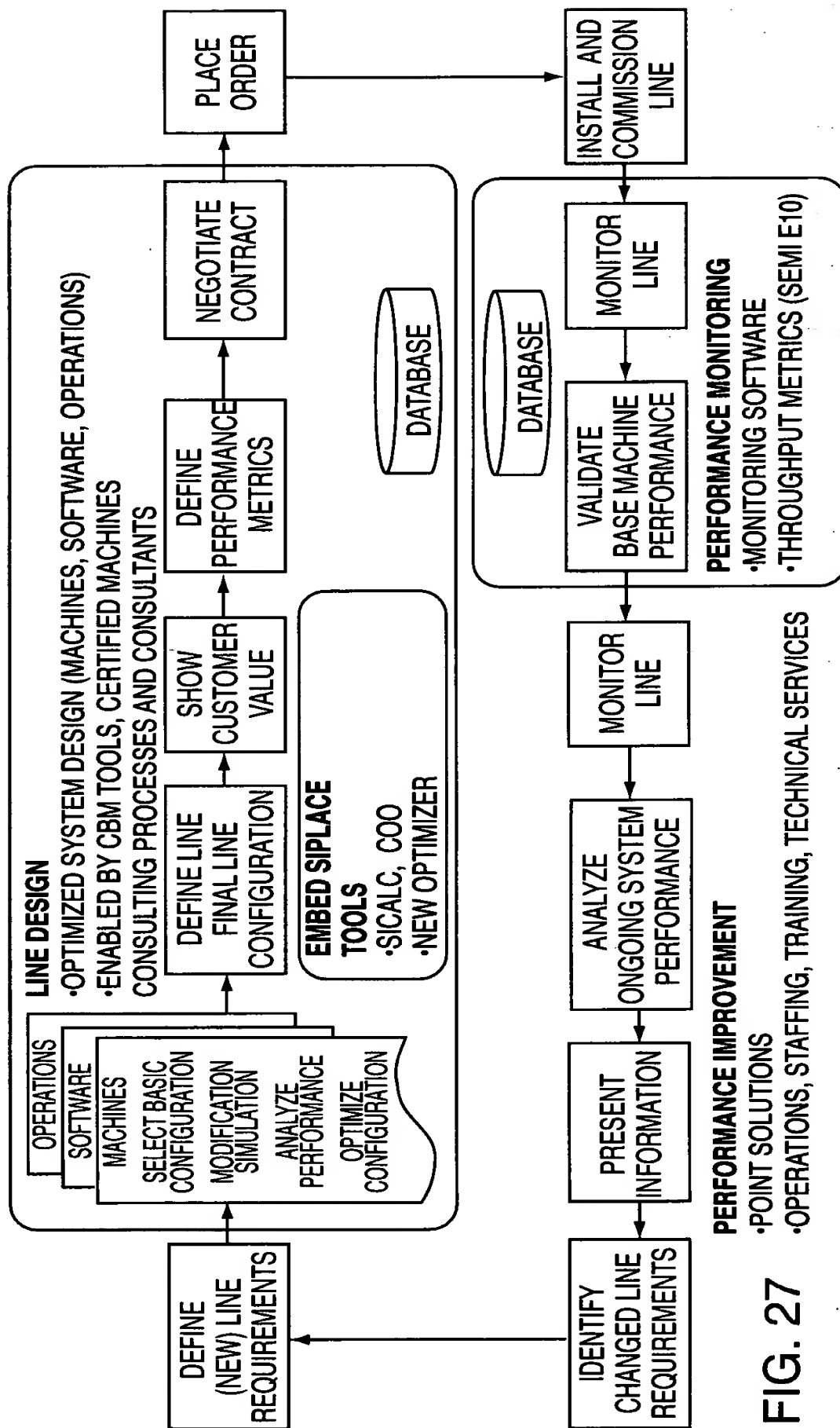


FIG. 27

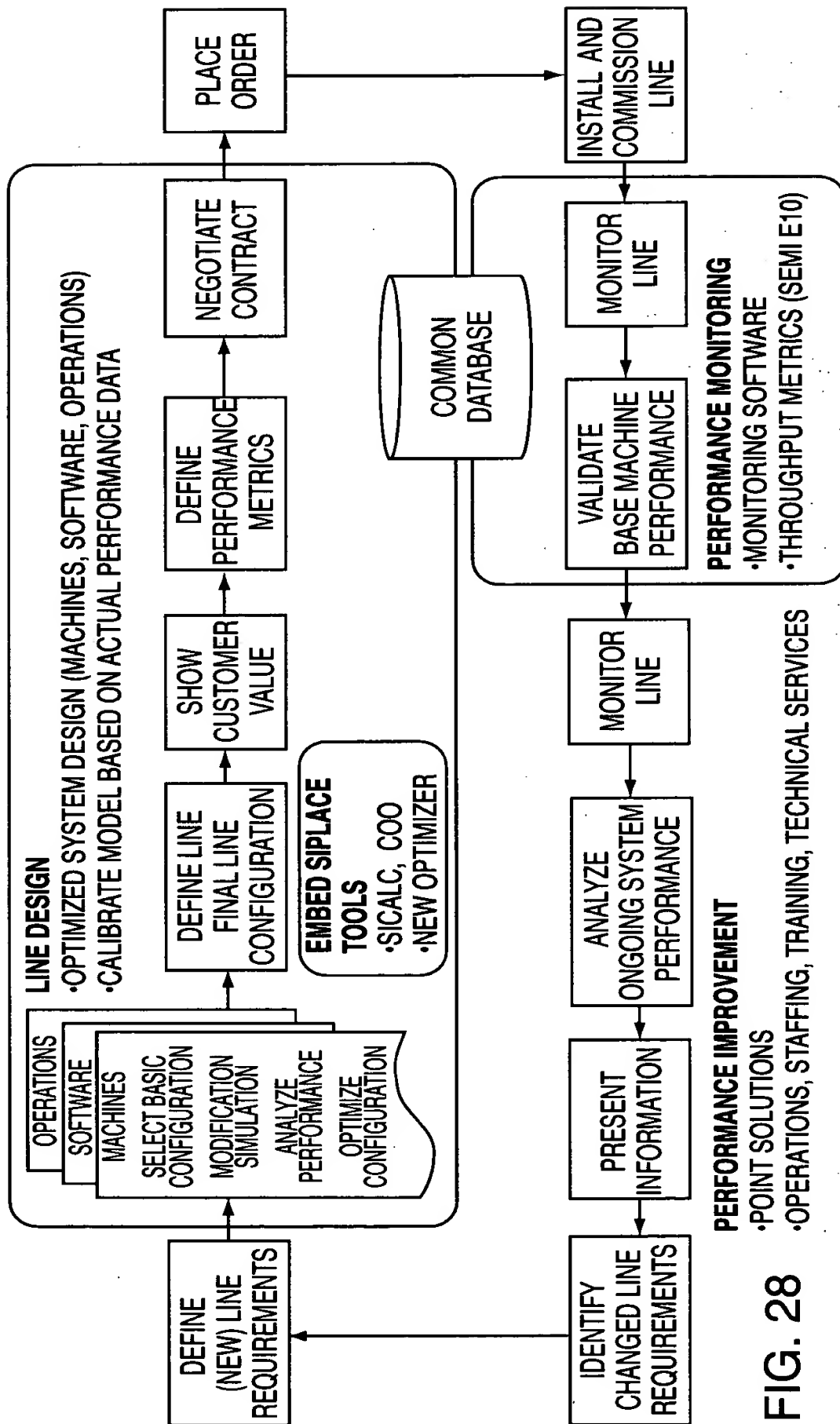


FIG. 28

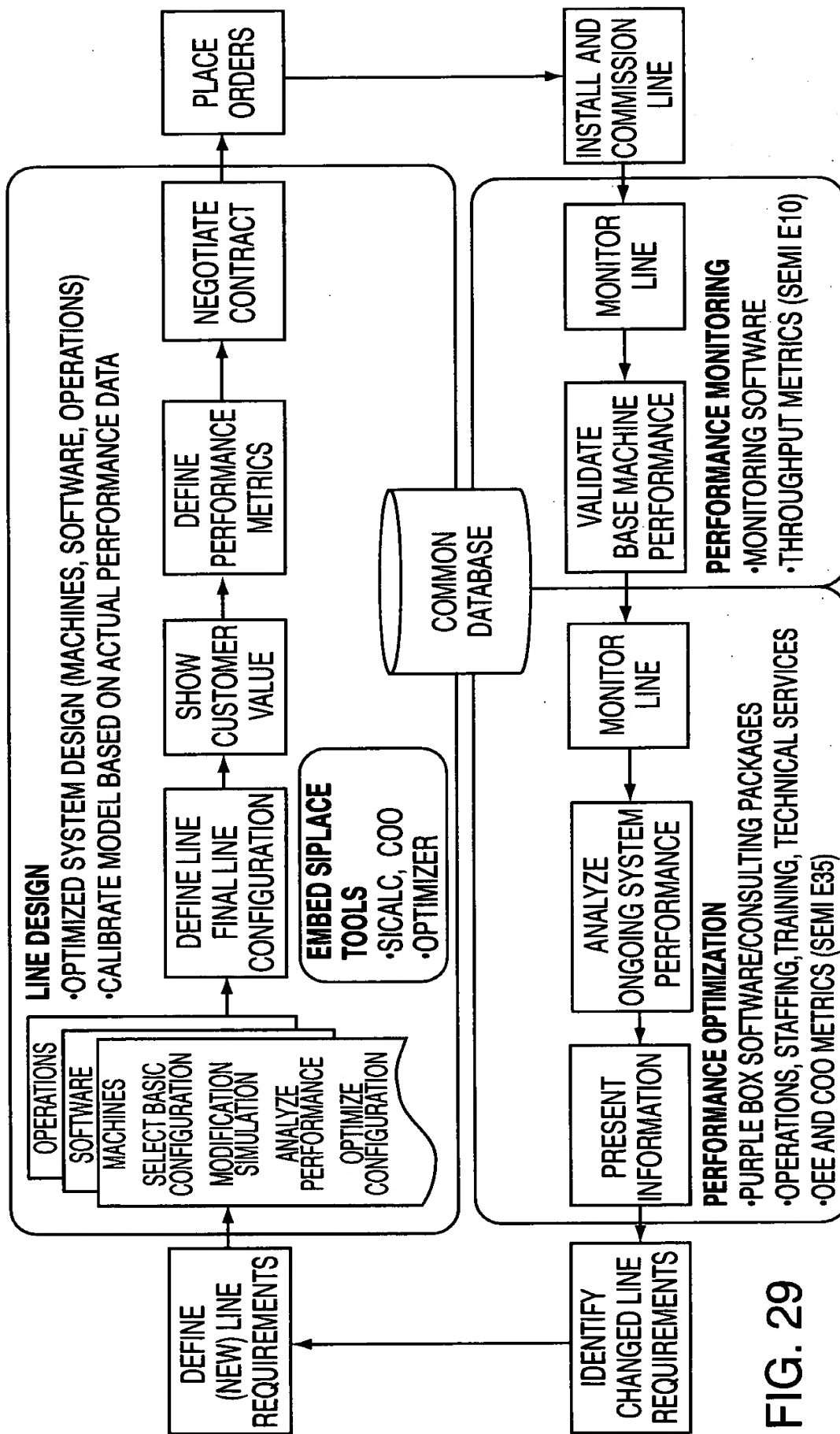


FIG. 29

09873023-060101

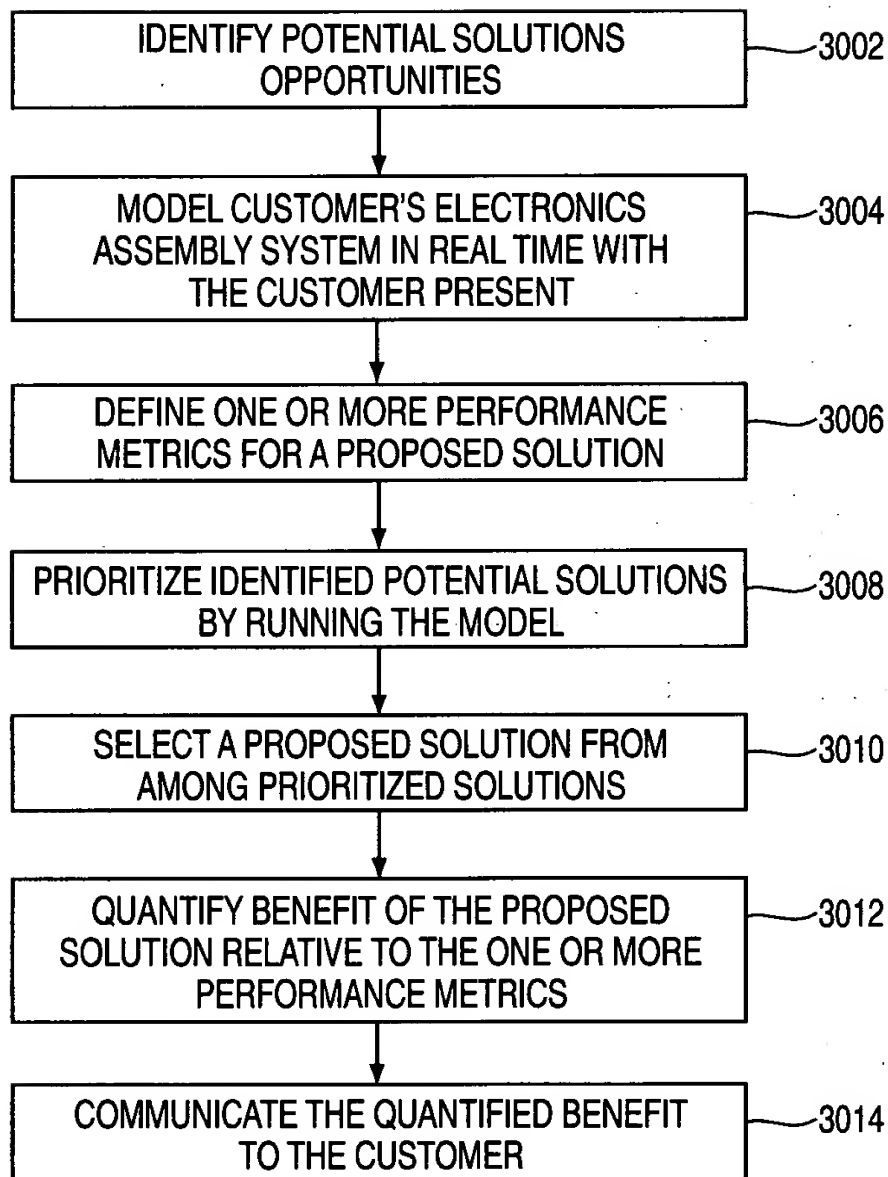


FIG. 30

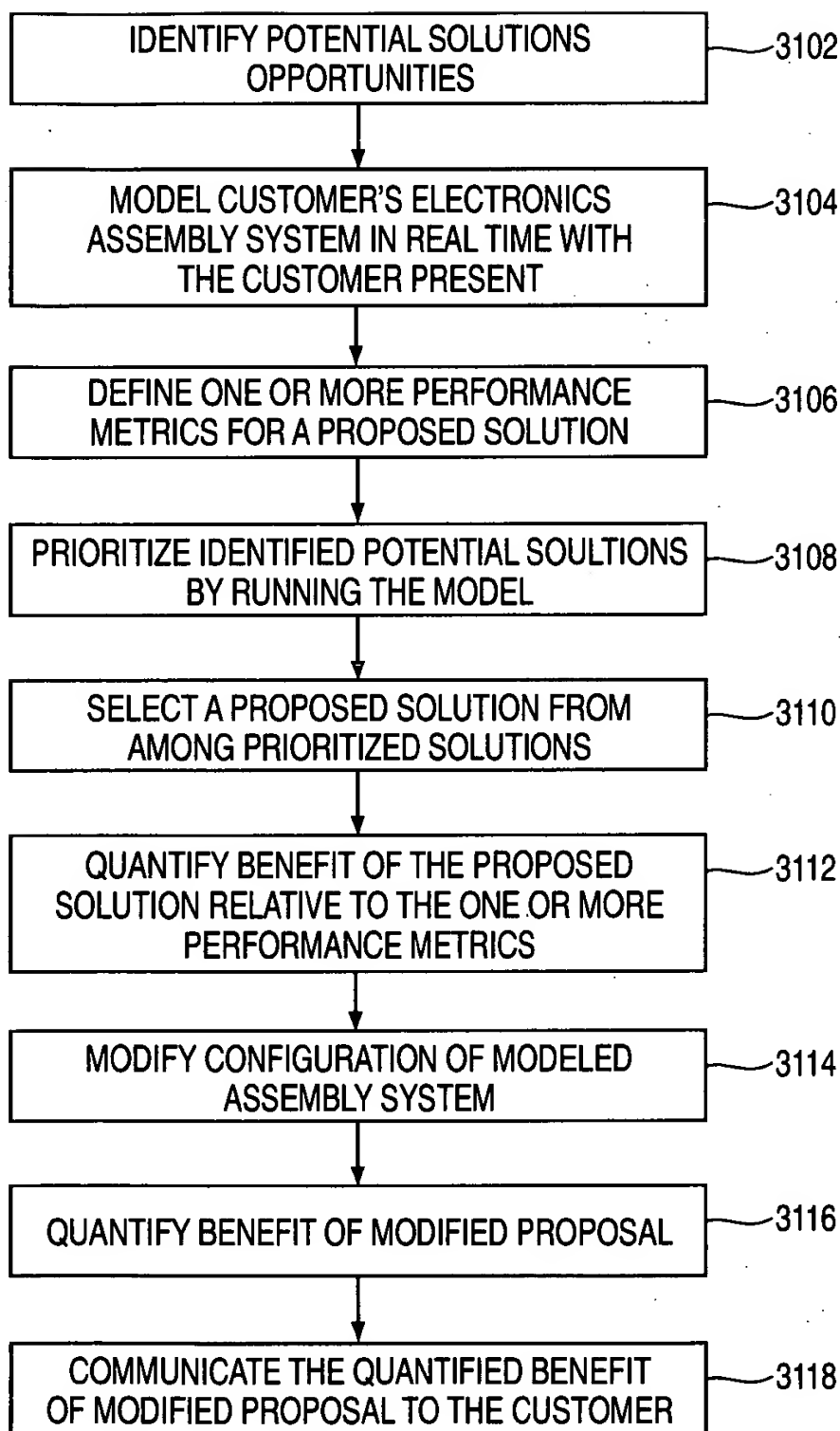


FIG. 31

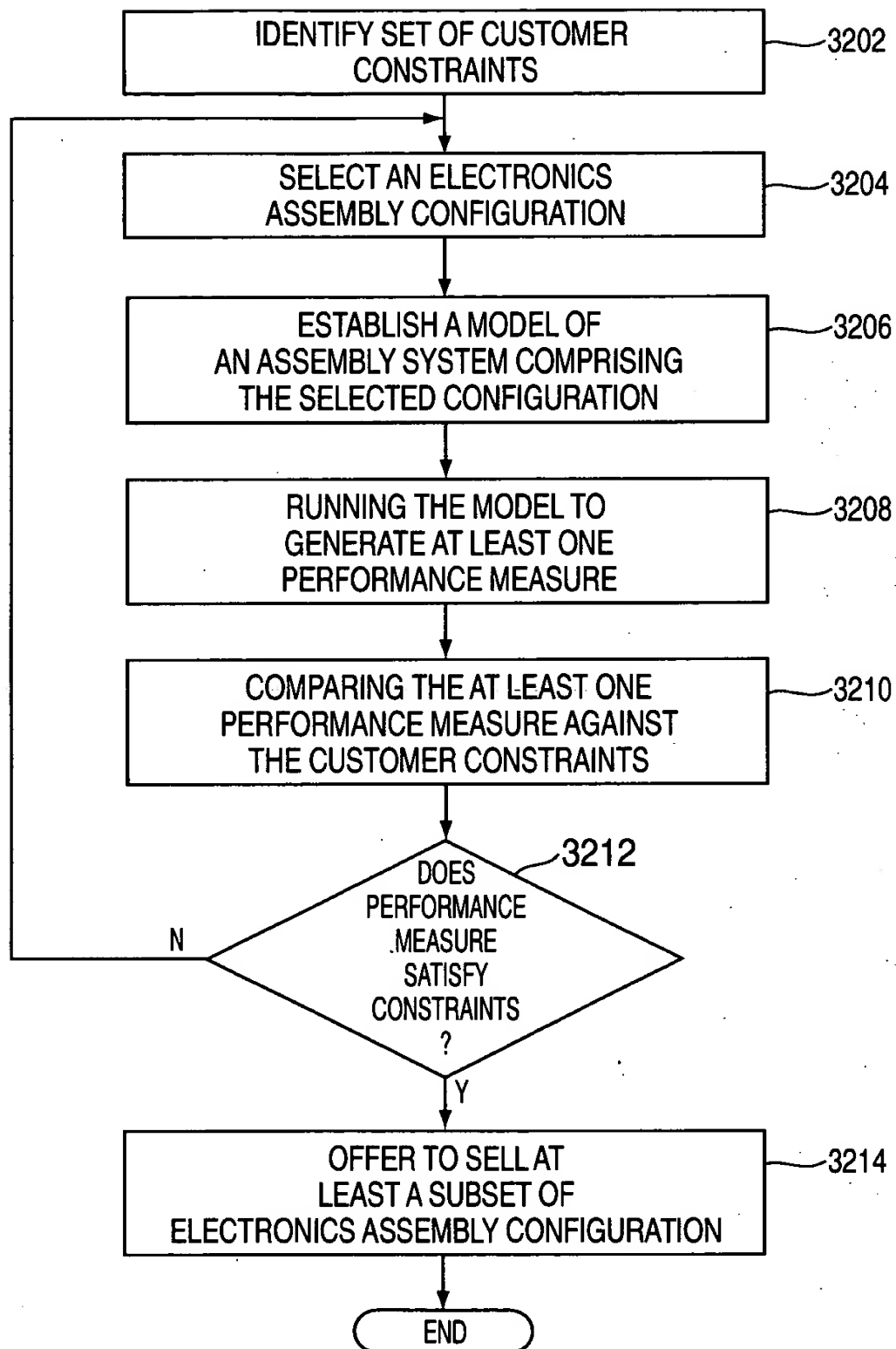


FIG. 32

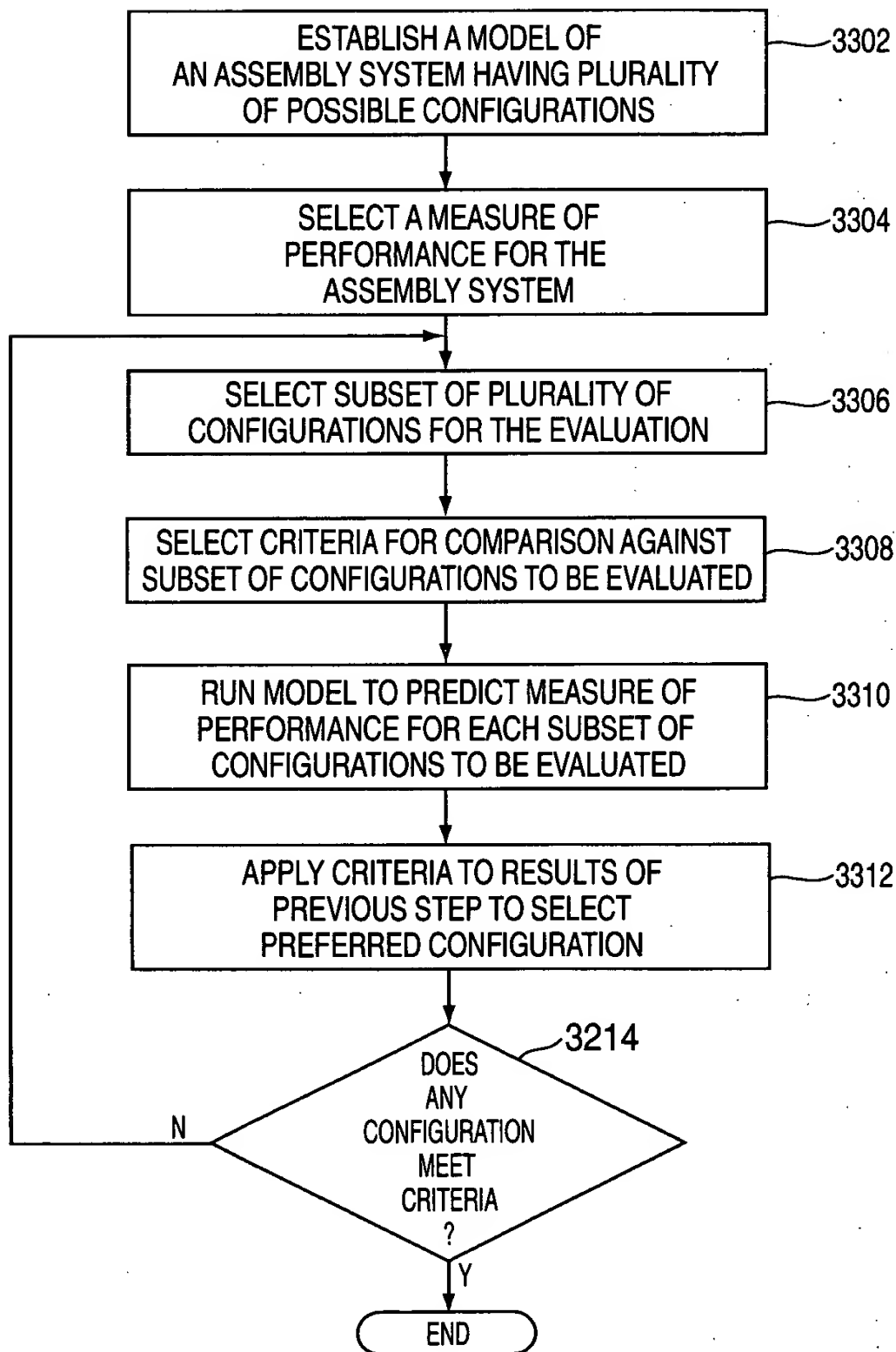


FIG. 33

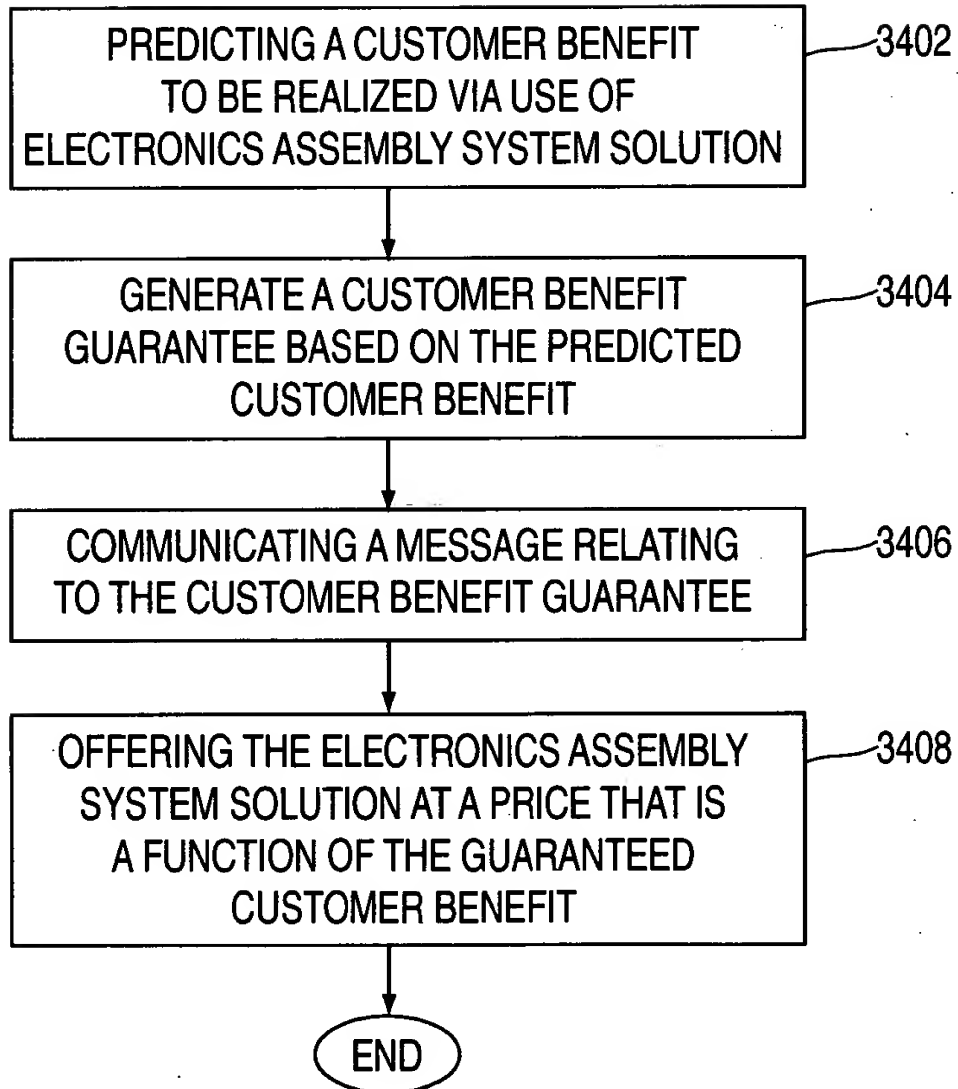


FIG. 34

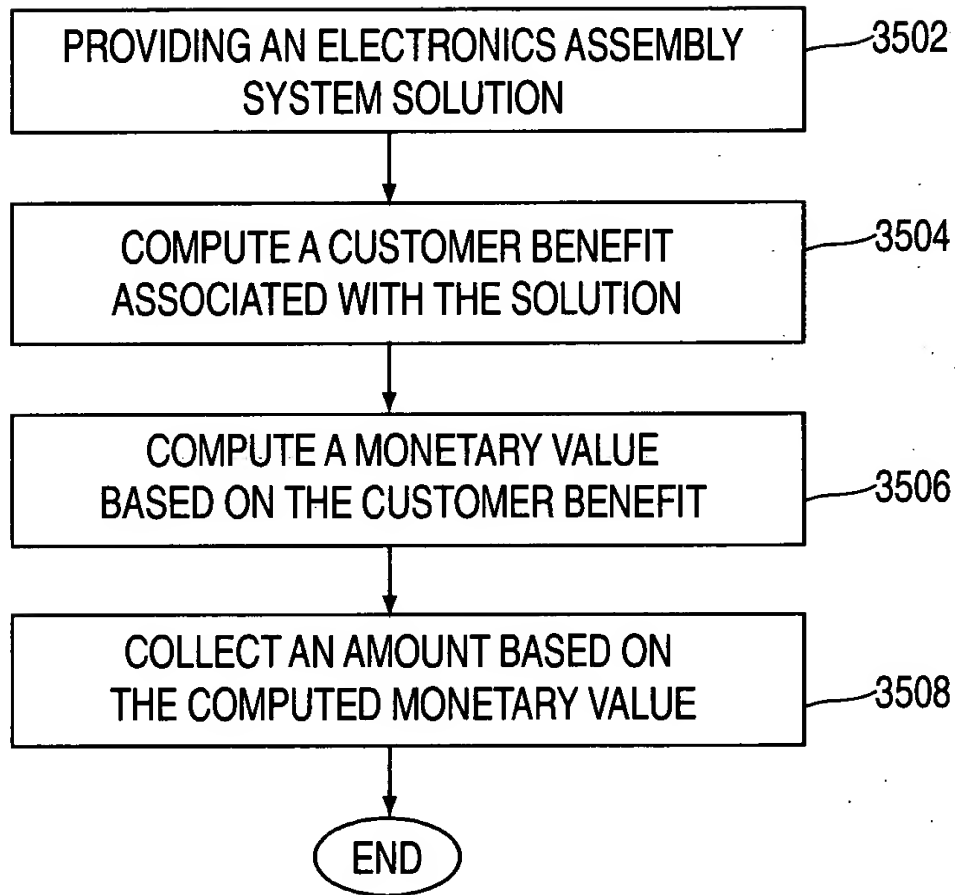


FIG. 35

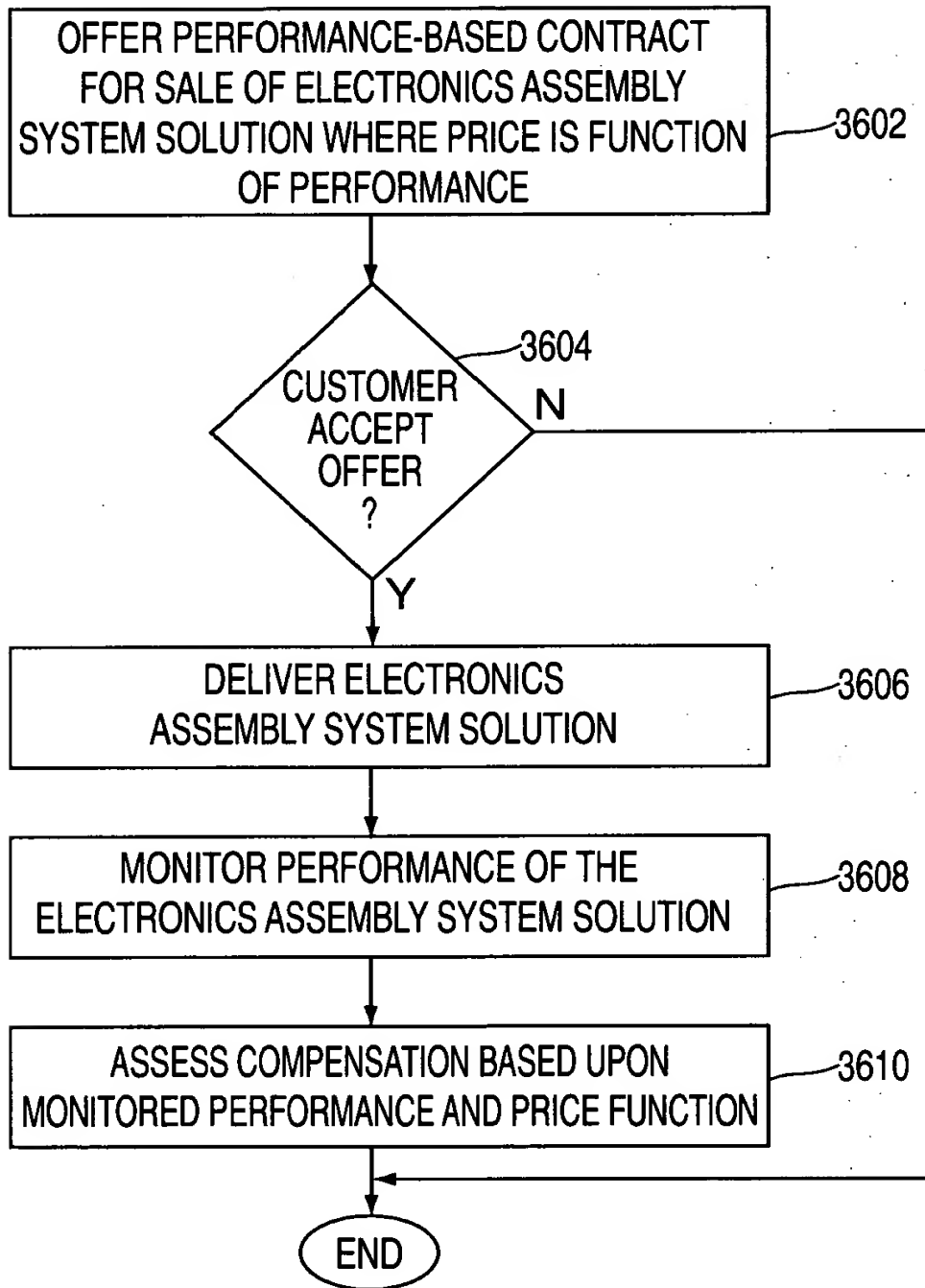


FIG. 36